Nova Scotia

Department of
Mines and Energy

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OPEN FILE REPORT 89-001

LITHOGEOCHEMISTRY OF THE EASTERN PORTION OF THE SOUTH MOUNTAIN BATHOLITH, NOVA SCOTIA N.T.S. MAP SHEETS 11D/05, 11D/12, 11D/13, 21A/09, 21A/10, 21A/15, 21A/16, and parts of 21H/01 and 21H/02.

Funding for this project was from the Nova Scotia Department of Mines and Energy under the Canada-Nova Scotia Mineral Development Agreement 1984-1989.

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June 1989

89-06400/

LITHOGEOCHEMISTRY OF THE EASTERN PORTION OF THE SOUTH MOUNTAIN BATHOLITH, NOVA SCOTIA
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INTRODUCTION

Geological mapping of the South Mountain Batholith (SMB, Fig. 1) was undertaken from 1984 to 1989 by the Nova Scotia Department of Mines and Energy under the Canada-Nova Scotia Mineral Development Agreement (CNSMDA). The lithogeochemical data contained in this Open File Report represent part of this detailed mapping program and include data from the eastern portion of the SMB mapped in 1985 and 1986 (Fig. 1). The purpose of the geochemical program is to establish the compositions of individual granitic rock units within the SMB, as determined by field mapping.

METHODOLOGY

Four hundred and fifty-six (456) samples were collected from the eastern portion of the batholith, including National Topographic System (N.T.S.) map sheets 11D/05, 11D/12, 11D/13, 21A/09, 21A/10, 21A/15, 21A/16 and parts of 21H/01 and 21H/02. Samples were selected using various criteria: first, to represent the full range of textures and compositions in order to determine local variations of lithological units and, second, to represent uniform coverage geographically in order to determine any regional variations of the units.

The geochemical data are available upon request from the library of the Nova Scotia Department of Mines and Energy at both the Halifax and Stellarton offices. The addresses are, respectively:

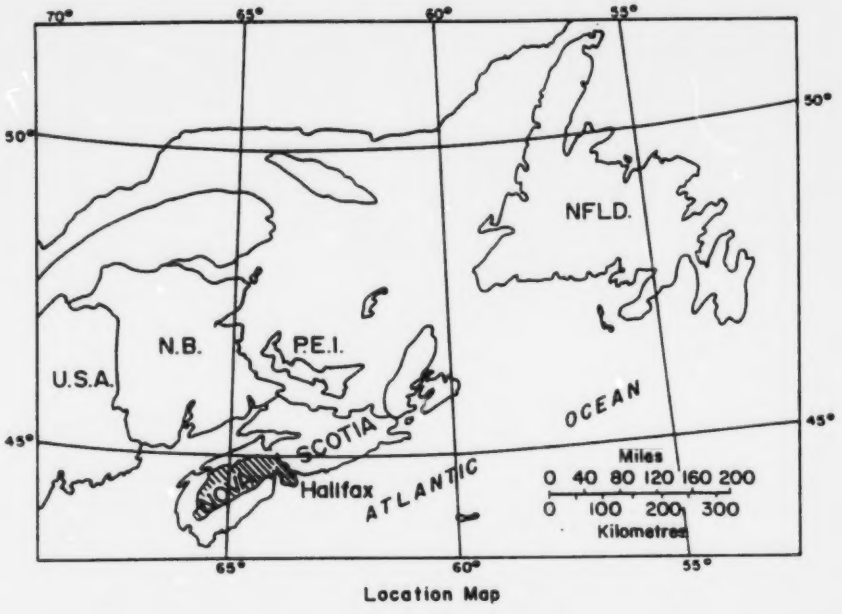
N.S. Dept. of Mines and Energy
Founders' Square
1701 Hollis Street, 3rd Floor
HALIFAX, Nova Scotia B3J 2X1
(902) 424-8633

N.S. Dept. of Mines and Energy
32 Bridge Avenue
STELLARTON, Pictou County
Nova Scotia B0K 1S0
(902) 752-8429

Floppy disk copies of the geochemical data without the accompanying documentation are available at an additional cost from the library at the Halifax address. The information is in a dBase III file on a double-sided, double density 360K floppy disk.

LITHOLOGIC UNITS

The map units are grouped into eight lithologic types based on texture (e.g. equigranular, porphyritic, seriate), grain size (fine - 0.1 cm, medium - 0.1-0.5 cm, coarse - 0.5 cm) and modal percentages of minerals (biotite, muscovite, cordierite and alkali feldspar megacrysts). The eight rock types are: (1) mafic porphyry (DCmgmp), (2) granodiorite (DCgd), (3) biotite monzogranite (DCmg), (4) muscovite-biotite monzogranite (DCmg), (5) coarse grained leucomonzogranite (DClm), (6) fine- to medium-grained leucomonzogranite (DClm), (7)



Location Map

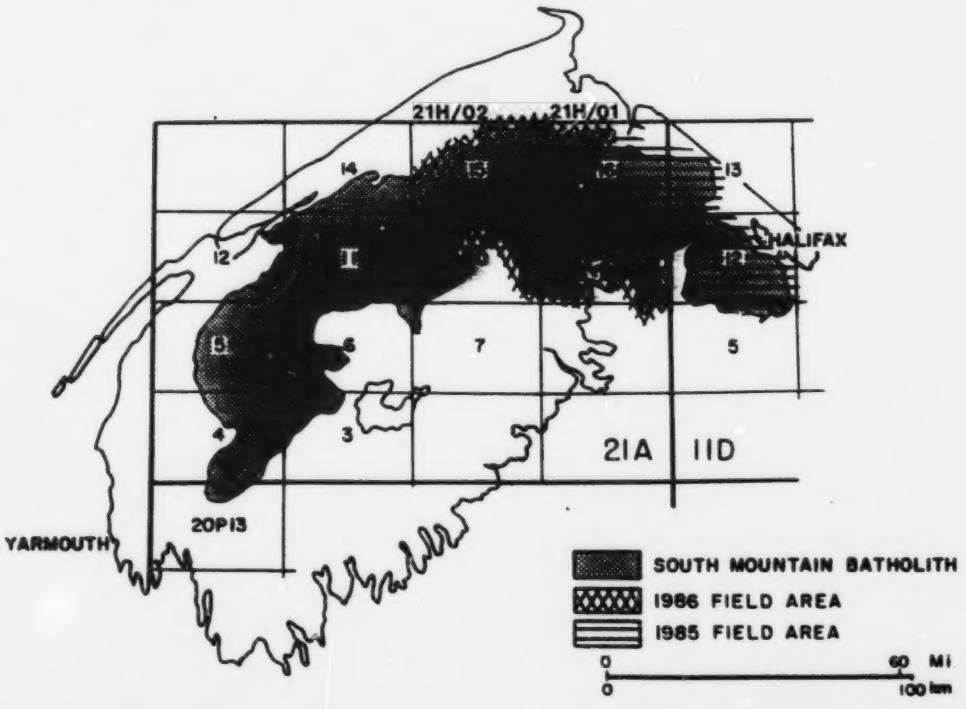


Figure 1. Location map showing area of South Mountain Batholith (SMB) mapped in 1985 and 1986.

intrusive suite (DCmg) and (8) leucogranite (DClg). With the exception of the mafic porphyry, these rock types were further subdivided into mappable units with the addition of a place name (e.g. Sandy Lake monzogranite: DCmgSL; Scrag Lake monzogranite: DcmgSG). These lithologic units are illustrated in the preliminary geology map and sample location map in the back pocket. General descriptions of each rock type are presented in Table 1. For more complete descriptions, the reader is referred to MacDonald et al. (1987a and 1987b). Repetition of similar units throughout the eastern half of the SMB allows many mappable units to be grouped into one of the eight major rock types, and Table 2 is a compilation of all these map units.

Most samples collected and analyzed are unaltered, however, some samples of alteration (e.g. hematization, albitization), greisenization and late-stage dyke rocks and quartz veins (both mineralized and unmineralized) were analyzed. The rock units of these latter samples are listed as Grei (greisen), Pegm (pegmatite), Epis (episyenite), Dyke (dyke rock), Vein (Qtz-W) (mineralized quartz vein), Alt (hematized) and Gn (gneissic rocks).

SAMPLING PROCEDURE

Approximately 25 kg of material were collected from large outcrop areas to eliminate potential problems with heterogeneity. Some low-lying, glaciated outcrops could not be sampled by conventional methods (chisels and sledge hammers) and were therefore drilled with a Poinjar pack-sack drill and blasted with dynamite to obtain sufficient sample material.

Samples were crushed to <2.5 cm fragments. Approximately 4 kg of unaltered material were subsequently hand picked to eliminate weathering, fracture-related alteration and xenoliths. This material was ultrasonically cleaned, dried, further crushed to <1 cm, and split to produce a 200 g subsample. This subsample was subsequently pulverized in a shatter box to minus 200 mesh.

QUALITY CONTROL

Samples were analyzed in batches of 20, with individual batches containing one analytical split (duplicate) and two bench standards (STD 1 and STD 2). STD 1 is a medium grained, non-megacrystic biotite granodiorite, which was collected from a rock quarry (Nictaux quarry) south of Middleton on N.T.S. map sheet 21A/14 (see Fig. 1 and sample location map in back pocket). STD 2 is a megacrystic biotite monzogranite which was collected along Highway #103 near the Aspotogan Peninsula on N.T.S. map sheet 21A/09 (see sample location map in back pocket). Approximately 200 kg of unaltered material were collected from these two locations and crushed according to the above procedure. The analytical precision of all analyses is indicated by the mean values and standard deviations for major and trace element compositions for the two bench standards (Table 3).

ANALYTICAL PROCEDURES

Samples, analytical splits and bench standards were sent to the Nova Scotia Regional X-ray Fluorescence Centre at St. Mary's University,

Halifax, for analysis of major oxides (SiO_2, TiO_2, Al_2O_3, Fe_2O_3, MnO, MgO, CaO, Na_2O, K_2O and P_2O_5) and a suite of trace elements (Ba, Rb, Sr, Y, Zr, Nb, Pb, Zn, Cu, V and Ga). The analyses were determined in a Philips PW-1400 sequential wavelength dispersive X-ray fluorescence spectrometer using a Rh-anode x-ray tube with 2.4 kilowatts of applied power. Fused glass disks were used to determine the major elements and pressed powder pellets were used for trace elements. Loss on ignition (listed as H_2O in the data tables) was determined by heating the sample for 1.5 hours at 1050°C in an electric furnace. Lower detection limits for trace element analysis are 5 ppm, except for Pb (10 ppm).

The same suite of samples was sent to Bondar-Clegg Laboratories in Ottawa and analyzed for the "Au plus 33" geochemical package of elements, of which Hf, Ta, Sc, La, Th, U, As and W are presented here. Li, F, B and Sn were additionally analyzed at this laboratory. Methods of analyses and detection limits for individual elements are as follows:

Hf	INAA	1 ppm
Ta	INAA	0.5 ppm
Sc	INAA	0.2 ppm
La	INAA	2 ppm
Th	INAA	0.2 ppm
U	INAA	0.2 ppm
As	INAA	0.5 ppm
W	INAA	1 ppm
Li	AA	1 ppm
F	Specific Ion Electrode	20 ppm
B	DC Plasma Emission Spectroscopy	10 ppm
Sn	X-ray Fluorescence	1 ppm

RESULTS

The following data tables present element analyses, normative mineralogy and selected normative ratios and indices for all 456 samples. Major element, C.I.P.W. normative calculations (including the quartz-albite-orthoclase ratios as R_Q, R_AB, R_OR, respectively), degree of alumina oversaturation (A/CNK), Thornton-Tuttle differentiation index (DIFNX), colour index (COLNX), crystallization index (XTLNX) and trace element data are listed in these data tables. Samples are listed in numerical order by 1:50 000 N.T.S. map sheet number. Sample locations are shown in the sample location map in the back pocket. The map sheet portion of the sample numbers (e.g. D12-, A09-) has been omitted in the sample location map. Map sheet numbers are plotted in the upper left hand corner of individual sheets. Where more than one sample was taken at the same location, additional sample numbers are illustrated in brackets (i.e. 21A/15 location 0008-3(-4) has two samples, 0008-3 and 0008-4). Each sample has an associated map unit (e.g. DClmHX) or rock type (e.g. Grei). Averages, standard deviations, minimum and maximum values have been calculated for each lithologic group and the two standards and are presented in Table 3.

For detailed descriptions of each rock unit, the reader is referred to individual 1:50 000 colour and open file maps produced by the Nova Scotia Department of Mines and Energy. These maps include 11D/05 and

11D/12 (MacDonald and Horne, 1987) 11D/13 (Corey, 1987), 21A/09 (Corey, 1988), 21A/10 (Horne, 1987), 21A/15 (MacDonald and Ham, 1988), 21A/16E (Ham and Horne, 1987) and 21A/16W (Ham, 1988).

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Corey, M. C. 1987: The geology of Mount Uniacke (west half), N.T.S. sheet 11D/13; Nova Scotia Department of Mines and Energy, Map 87-8, scale 1:50 000.

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TABLE 1. Textural and mineralogical characteristics of rock units of the eastern portion of the SMB.

ROCK TYPE[1]	SUBUNIT[2]	LITHOLOGY[3]	GRAIN SIZE[4]	TEXTURE	COLOUR	MODAL MINERALOGY (% determined by point counting) BIOTITE	MUSCOVITE	CORDIERITE	GARNET	FELDSPAR MEGACRYSTS[5]	XENOLITHS
GRANODIORITE		granodiorite	m - c	megacrystic	lt - dk grey	12 - 23	0 - tr locally 2%	0 - tr	0 - tr	5 - 15	common to abundant
	S	granodiorite (tonalite)	f - c f - m	slightly megacrystic, seriate	lt - m grey	12 - 20 locally to 30%	0 - tr	0 - tr	0 - tr	0 - 2	common to abundant
	E	granodiorite (tonalite)	f - m	equigranular, slightly porphyritic	m - dk grey	12 - 32	0 - tr	none	none	0 - 2	common to abundant
BIOTITE MONZOGRANITE		monzogranite	m - c f - c	megacrystic	lt - dk grey	10 - 18	0 - 1	0 - tr locally 3%	0 - 1	5 - 30	common to abundant
	S	monzogranite (granodiorite)	f - c	slightly megacrystic, seriate	lt grey	8 - 15	tr locally to 2%	0 - tr locally to 3%	0 - tr	<2 - 5	common
	P	monzogranite	f - m	porphyritic	lt grey	10 - 15	0 - tr	0 - tr	0 - tr	0 - 1	rare
MUSCOVITE-BIOTITE MONZOGRANITE		monzogranite	m - c	megacrystic	lt grey	7 - 13	tr - 2	0 - tr locally 2%	0 - tr	5 - 30	common
	E	monzogranite	f - m	equigranular, seriate, slightly megacrystic	lt grey to buff	7 - 10	tr - 2 locally to 4%	0 - tr	0 - tr	0 - 5	common
	P	monzogranite	f	porphyritic	lt grey	7 - 10	tr - 1	0 - tr	0 - tr		rare
	C	monzogranite	f - c	seriate, megacrystic	lt grey	5 - 8	tr - 2	1 - 4	0 - tr	5 - 20	rare
	M	monzogranite	c	megacrystic	lt grey	4 - 10	tr - 2	tr - 2	none	20 - 40	rare to common
COARSE GRAINED LEUCOMONZOGRANITE		monzogranite	m - c locally fine	megacrystic, slightly porphyritic	lt grey to buff-orange	3 - 7	1 - 4	tr - 2 locally to 4%	0 - tr	5 - 40	rare
	E	monzogranite	m - c	equigranular, slightly porphyritic	lt grey to buff-orange	4 - 7	1 - 4	tr - 2	0 - tr	0 - 10	rare
	C	monzogranite	m - c	seriate, megacrystic	buff-orange	4 - 7	tr - 2	2 - 4	0 - tr	5 - 20	rare
FINE- TO MEDIUM-GRAINED LEUCOMONZOGRANITE		monzogranite (syenogranite)	f - m	texturally variable	lt grey to buff-orange	2 - 7	1 - 5	tr - 1	0 - tr	0 - 5	none
	P	monzogranite (syenogranite	f - m	porphyritic	lt grey to buff-orange	2 - 8	1 - 6	tr - 2	0 - tr	0 - 5	none
	E	monzogranite (syenogranite)	f - m	equigranular to seriate	lt grey to buff-orange	tr - 6	1 - 5	tr - 2	0 - tr	0 - 2	none
INTRUSIVE SUITES		monzogranite (syenogranite)	f - c	equigranular, seriate, aplitic, pegmatitic, megacrystic	lt grey to buff-orange	2 - 10	tr - 4	tr - 2	tr - 4	0 - 2	none
LEUCOGRANITE		monzogranite (syenogranite)	f - m locally coarse	equigranular, seriate, porphyritic, pegmatitic	lt grey to orange	tr - 2 locally to 5%	2 - 10	tr - 2	0 - tr	0 - 1	none
MAFIC PORPHYRY		monzogranite (granodiorite)	f - m	porphyritic	grey-black	10 - 20	0 - tr	none	0 - tr	0 - 10	common to abundant

1 Units arranged in decreasing mafic mineral content with the exception of mafic porphyry.

2 S = slightly megacrystic, E = equigranular, P = porphyritic, M = megacrystic, C = cordierite-enriched

3 According to the fields of Streckeisen (1976).

4 f - fine grained (<0.1 cm) m - medium grained (0.1 - 0.5 cm) c - coarse grained (0.5 - 3.0 cm)

5 Feldspar megacrysts are mostly alkali feldspar but may also be plagioclase.

TABLE 2. Rock type, unit and unit names of mappable rock units.

ROCK TYPE*	UNIT	UNIT NAME
MAFIC PORPHYRY	DCmgmp	mafic porphyry
GRANODIORITE	DCgd	granodiorite
	DCgdBL	Boot Lake granodiorite
	DCgdGL	Gaspereaux Lake granodiorite
	DCgdSL	Scrag Lake granodiorite
BIOTITE MONZOGRANITE	DCmgCL	Cloud Lake monzogranite
	DCmgGL	Gaspereaux Lake monzogranite
	DCmgLR	Little Round Lake monzogranite
	DCmgP	Peggys Cove monzogranite
	DCmgSG	Scrag Lake monzogranite
	DCmgSL	Sandy Lake monzogranite
	DCmgST	Salmontail monzogranite
MUSCOVITE-BIOTITE MONZOGRANITE	DCmgHF	Harrietsfield monzogranite
	DCmgJS	Joe Simon monzogranite
	DCmgKL	Kerr Lake monzogranite
	DCmgS	Sherwood monzogranite
	DCmgWD	West Dalhousie monzogranite
	DCmgWL	Whale Lake monzogranite
COARSE-GRAINED LEUCOMONZOGRANITE	DClmHX	Halifax Peninsula leucomonzogranite
	DClmLG	Lake George leucomonzogranite
	DClmNR	New Ross leucomonzogranite
	DClmSP	Spectacle Lake leucomonzogranite
FINE- TO MEDIUM-GRAINED LEUCOMONZOGRANITE	DClmED	East Dalhousie leucomonzogranite
	DClmGR	Gold River leucomonzogranite
	DClmJS	Joe Simon leucomonzogranite
	DClmNC	New Cornwall leucomonzogranite
	DClmPL	Pamuke Lake leucomonzogranite
	DClmT	Tantallon leucomonzogranite
	DClmWA	Walden leucomonzogranite
INTRUSIVE SUITE	DCmgBI	Big Indian polyphase intrusive suite
LEUCOGRANITE	DClgBB	Burnt Blanket leucogranite
	DClgKR	Keddy-Reeves leucogranite
	DClgLL	Lake Lewis leucogranite
	DClgLO	Long Lake leucogranite
	DClgML	Murphy Lake leucogranite
	DClgWB	Walsh Brook leucogranite

*Units arranged in order of decreasing mafic mineral content

TABLE 3. Averages, standard deviations and maximum/minimum values for the eight rock types and two standards.

UNIT		SiO_2	Al_2O_3	Fe_2O_3	CaO	MgO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	H_2O	Q	OR	AB	AN	C	LR	IL	HM	HY	MU	AP	R_Q	R_AB	R_OR	A_CNK	DIFNK	COLNK	KYLNK
LEUCOGRANITE																														
n=29	AVG	73.51	14.67	1.23	0.41	0.76	3.79	4.10	0.07	0.44	0.03	0.78	34.91	24.63	32.35	0.00	4.02	1.91	0.06	1.23	1.91	0.04	1.04	38.08	35.27	26.65	1.29	91.68	3.21	1.34
	STD	0.89	0.49	0.21	0.14	0.10	0.49	0.45	0.05	0.15	0.01	0.17	2.17	2.69	4.11	0.00	0.62	0.26	0.02	0.22	0.26	0.04	0.36	2.44	4.38	2.94	0.06	0.83	0.42	0.18
	MAX	75.17	15.56	1.79	0.79	1.10	4.86	4.93	0.19	0.76	0.05	1.11	38.13	29.31	41.63	0.00	5.07	2.72	0.09	1.80	2.72	0.14	1.78	41.59	45.13	31.86	1.38	93.26	4.35	1.90
	MIN	71.85	13.79	0.91	0.21	0.60	3.14	3.02	0.01	0.28	0.02	0.20	29.66	17.92	26.85	0.00	2.76	1.51	0.02	0.89	1.51	0.00	0.65	32.16	29.64	19.21	1.18	90.31	2.50	1.06
FINE GRAINED LEUCOMONZOGRANITE																														
n=100	AVG	73.90	14.27	1.45	0.41	0.84	3.51	4.48	0.13	0.27	0.04	0.63	35.08	26.70	29.85	0.52	3.49	2.12	0.09	1.45	2.12	0.09	0.62	38.28	32.56	29.16	1.26	91.63	3.67	2.00
	STD	1.20	0.67	0.43	0.18	0.22	0.38	0.34	0.08	0.07	0.01	0.19	2.88	1.99	3.16	0.94	0.73	0.56	0.03	0.44	0.56	0.08	0.16	3.08	3.22	2.33	0.07	1.63	0.86	1.13
	MAX	76.08	15.25	2.86	1.31	2.16	4.75	5.30	0.42	0.50	0.09	1.30	44.89	31.54	40.06	5.19	6.46	5.34	0.19	2.88	5.34	0.38	1.19	50.25	42.38	35.59	1.63	94.52	6.76	6.56
	MIN	69.77	12.94	0.54	0.24	0.40	2.23	3.38	0.03	0.12	0.02	0.13	28.17	20.48	19.18	0.00	0.49	1.00	0.04	0.53	1.00	0.00	0.28	29.80	21.47	22.35	1.00	86.02	2.16	0.70
COARSE GRAINED LEUCOMONZOGRANITE																														
n=44	AVG	73.22	14.23	1.89	0.59	0.91	3.41	4.68	0.19	0.23	0.05	0.53	33.70	27.83	29.03	1.43	3.05	2.27	0.11	1.90	2.27	0.14	0.55	37.21	32.06	30.76	1.21	90.56	4.28	3.03
	STD	1.07	0.48	0.37	0.20	0.15	0.34	0.25	0.06	0.05	0.01	0.18	2.74	1.69	2.79	1.10	0.64	0.38	0.03	0.37	0.38	0.06	0.11	2.89	3.01	1.73	0.06	1.47	0.65	1.26
	MAX	76.36	15.57	2.88	1.21	1.31	4.39	5.41	0.37	0.38	0.08	1.00	39.15	32.28	37.27	4.58	4.15	3.30	0.17	2.90	3.30	0.30	0.88	41.78	39.97	35.73	1.33	93.69	6.12	6.57
	MIN	70.31	12.89	1.11	0.27	0.58	2.80	3.92	0.07	0.12	0.02	0.10	23.75	23.25	23.91	0.00	1.46	1.45	0.04	1.12	1.45	0.02	0.28	26.69	26.95	26.59	1.08	87.05	3.01	1.28
EXPLOSIVE SUITE																														
n=25	AVG	72.82	14.66	1.65	0.55	0.99	3.55	4.66	0.14	0.16	0.07	0.80	32.31	27.79	30.25	1.74	3.17	2.48	0.13	1.64	2.48	0.07	0.38	35.60	33.71	30.69	1.24	90.35	4.29	3.48
	STD	4.09	2.39	0.84	0.61	0.23	0.61	1.18	0.09	0.06	0.03	0.81	5.65	7.00	5.18	3.04	2.40	0.58	0.05	0.99	0.58	0.07	0.15	5.71	7.34	7.63	0.21	4.80	1.44	3.20
	MAX	76.37	24.13	5.31	3.38	1.44	5.64	7.84	0.39	0.32	0.19	4.50	42.51	46.08	48.24	15.83	14.18	3.60	0.30	5.52	3.60	0.29	0.75	49.77	63.68	48.65	2.19	94.71	9.03	17.91
	MIN	56.36	13.00	0.70	0.05	0.55	2.37	0.68	0.02	0.09	0.04	0.20	12.68	5.20	19.93	0.00	1.36	1.36	0.04	0.58	1.36	0.00	0.21	16.76	21.04	6.09	1.06	75.75	2.40	0.95
BIOTITE-BIOTITE MONZOGRANITE																														
n=44	AVG	71.46	14.62	2.51	0.86	1.17	3.52	4.63	0.34	0.25	0.05	0.59	30.52	27.55	29.92	2.74	2.84	2.92	0.12	2.53	2.92	0.28	0.58	34.70	34.00	31.30	1.18	87.99	5.57	4.79
	STD	1.08	0.36	0.54	0.30	0.19	0.37	0.34	0.09	0.03	0.01	0.16	2.50	2.05	3.08	1.54	0.56	0.46	0.02	0.54	0.46	0.08	0.07	2.94	3.27	1.90	0.05	2.38	0.91	1.71
	MAX	73.88	15.42	3.50	1.75	1.52	4.89	5.39	0.49	0.31	0.08	1.00	35.37	32.03	41.15	7.52	4.02	3.81	0.17	3.52	3.81	0.41	0.73	40.53	45.08	35.45	1.29	91.41	7.43	10.15
	MIN	68.74	13.99	1.64	0.45	0.83	2.92	4.12	0.18	0.17	0.03	0.29	23.71	24.39	24.87	0.49	1.27	2.09	0.06	1.65	2.09	0.11	0.40	25.98	28.20	28.09	1.04	81.91	3.90	2.09
BIOTITE MONZOGRANITE																														
n=66	AVG	69.51	14.82	3.51	1.31	1.46	3.41	4.26	0.48	0.20	0.08	0.59	29.23	25.46	29.09	5.22	2.73	3.67	0.17	3.54	3.67	0.39	0.47	34.88	34.76	30.36	1.18	83.78	7.40	7.79
	STD	1.68	0.40	0.88	0.42	0.27	0.30	0.39	0.13	0.03	0.05	0.20	2.82	2.28	2.53	2.05	0.62	0.68	0.04	0.83	0.68	0.13	0.08	2.97	3.13	2.07	0.04	3.18	1.36	2.35
	MAX	73.09	15.88	5.54	2.24	2.63	4.49	5.32	0.85	0.37	0.50	1.20	36.97	31.97	38.71	9.72	4.25	6.56	0.39	5.62	6.56	0.78	0.87	43.90	43.62	35.97	1.34	90.80	10.99	13.08
	MIN	65.23	13.84	1.76	0.35	0.91	2.83	3.40	0.28	0.12	0.04	0.11	23.36	20.34	24.23	0.47	1.38	2.30	0.09	1.40	2.30	0.00	0.28	27.26	27.87	24.52	1.08	76.74	4.51	2.33
MAFIC PORPHYRY																														
n=5	AVG	68.94	14.72	3.60	1.33	2.13	3.75	4.07	0.54	0.21	0.07	0.67	26.32	24.23	31.93	5.15	2.28	5.29	0.15	3.63	5.29	0.46	0.48	31.86	38.77	29.37	1.14	82.48	9.16	8.94
	STD	1.17	0.37	0.63	0.52	0.76	0.47	0.30	0.19	0.00	0.01	0.10	3.29	1.89	3.83	2.39	1.32	1.87	0.01	0.65	1.87	0.19	0.01	3.50	5.11	1.90	0.11	2.59	1.45	2.98
	MAX	70.13	15.36	4.37	2.32	3.60	4.56	4.35	0.87	0.21	0.08	0.80	30.51	25.92	38.55	9.70	3.74	8.93	0.17	4.43	8.93	0.80	0.49	36.01	48.34	31.50	1.26	84.39	11.57	13.44
	MIN	67.22	14.28	2.50	0.67	1.50	3.21	3.49	0.29	0.20	0.06	0.50	20.57	20.62	27.54	2.99	0.00	3.76	0.13	2.49	3.76	0.21	0.44	25.79	34.03	25.87	0.96	79.74	7.40	5.89
GRANODIORITE																														
n=57	AVG	67.10	15.51	4.54	1.94	1.83	3.48	3.69	0.67	0.21	0.09	0.66	26.72	22.03	29.70	8.29	2.81	4.61	0.19	4.58	4.61	0.58	0.50	34.10	37.86	28.05	1.18	78.44	9.38	11.52
	STD	1.73	0.75	0.82	0.48	0.25	0.46	0.41	0.13	0.04	0.02	0.35	3.13	2.47	3.86	2.36	1.04	0.84	0.05	0.84	0.64	0.12	0.08	4.08	4.71	2.60	0.10	3.19	1.37	2.50
	MAX	70.58	18.70	6.36	3.07	2.56	5.29	4.69	0.96	0.36	0.18	2.48	33.59	27.84	45.13	13.51	9.28	6.43	0.40	6.57	6.43	0.79	0.84	43.68	56.16	37.23	1.85	85.54	13.09	17.25
	MIN	60.85	14.07	2.25	0.88	1.37	2.13	2.64	0.31	0.14	0.06	0.20	16.05	15.74	18.63	2.55	1.42	3.44	0.13	2.27	3.44	0.24	0.33	19.97	25.32	21.75	1.08	72.37	5.83	6.29
STANDARD (1)																														
n=34	AVG	67.81	16.42	3.33	2.87	1.65	4.35	1.98	0.38	0.16	0.07	0.61	27.02	11.81	37.16	13.45	2.28	4.16	0.15	3.36	4.16	0.30	0.33	35.58	48.87	15.55	1.13	75.98	7.67	16.36
	STD	0.67	0.19	0.06	0.03	0.17	0.24	0.02	0.01	0.00	0.00	0.17	1.77	0.15	2.13	0.15	0.49	0.41	0.00	0.07	0.41	0.01	0.01	2.48	2.58	0.23	0.04	0.49	0.38	0.29
	MAX	69.03	16.76	3.40	2.93	2.33	4.82	2.05	0.39	0.36	0.08	1.10	30.38	12.21	41.55	13.98	3.24	5.74	0.16	3.43	5.74	0.32	0.33	40.13	54.07	16.29	1.21	77.25	9.05	17.34
	MIN	65.42	15.70	3.12	2.79	1.45	3.89	1.93	0.37	0.13	0.07	0.20	23.18	11.53	33.14	13.17	0.91	3.65	0.15	3.15	3.65	0.29	0.30	30.16	44.21	15.10	1.04	74.96	7.19	15.94
STANDARD (2)																														
n=34	AVG	70.42	14.54	3.26	1.17	1.33	3.34	4.34	0.32	0.18	0.08	0.58	30.72	25.93	28.49	4.66	2.68	3.34	0.18	3.30	3.34	0.28	0.42	36.10	33.45	30.46	1.18	85.13	6.82	7.01
	STD	0.67	0.13	0.07	0.01	0.13	0.35	0.04	0.01	0.00	0.00	0.19	2.58	0.26	2.96	0.07	0.59	0.33	0.01	0.07	0.33	0.01	0.04	3.23	3.31	0.38	0.06	0.56	0.33	0.21
	MAX	72.05	14.82	3.39	1.20	1.55	4.09	4.42	0.39	0.19	0.09	0.90	41.13	26.48	34.79	4.83	4.79	3.91	0.20	3.48	3.91	0.30	0.45	40.17	40.15	31.33	1.43	86.65	7.46	7.45
	MIN	68.95	14.29	3.07	1.15	1.05	1.98	4.26	0.36	0.17	0.08	0.00	25.93	25.30	16.98	4.54	1.37	2.84	0.17	3.12	2.64	0.27	0.40	29.93	20.30	29.73	1.07	83.44	6.17	6.58

TABLE 3 (continued).

UNIT		Ba	Rb	Sr	Zr	Nb	V	Y	Ga	Cu	Pb	Zn	Hf	Ta	Sc	La	Th	U	Li	F	B	As	Sn	W
LEUCOGRANITE																								
n=29	AVG	61 34	588 83	19 36	39 45	22 31	2 62	26 24	26 93	0 59	13 21	61 69	1 48	4 24	2 56	4 62	4 14	3 89	219 79	2317 24	26 17	2 54	26 97	7 03
	STD	73 06	226 37	13 06	16 05	8 25	3 43	7 53	5 17	1 92	8 58	31 64	1 04	3 28	0 99	5 37	2 85	2 13	160 93	1245 29	17 42	1 27	10 27	3 23
	MAX	280.	1058.	55.	76.	38.	11.	41.	37.	4.	16.	190.	4 0	14 0	5 8	25.	13 0	12 0	540.	4240.	100.	6 3	48.	19.
	MIN	8.	188.	5.	16.	9.	0.	12.	18.	0.	0.	22.	0 0	0 9	1 4	0.	1 1	1 7	19.	245.	12.	0 7	4.	2.
FINE GRAINED LEUCOMONZOGRANITE																								
n=100	AVG	145 98	338 05	31 09	59 93	11 73	4 55	21 36	20 71	2 70	19 87	45 47	1 89	2 46	3 16	9 56	4 19	7 78	107 01	959 70	25 13	6 25	18 50	5 52
	STD	147 69	110 42	26 77	27 62	4 04	6 01	4 89	3 28	7 80	6 90	18 39	1 05	1 46	1 06	8 39	4 23	5 29	73 67	902 00	11 07	8 56	9 34	6 48
	MAX	591.	668.	171.	154.	36.	31.	33.	34.	57.	42.	136.	5 0	13 0	7 6	40	23 8	28 6	386.	7680.	80.	65 5	48.	42.
	MIN	0.	168.	0.	14.	5.	0.	10.	14.	0.	0.	12.	0 0	0 7	0 6	0	1 0	1 5	6.	105.	0.	0 5	1.	0.
COARSE GRAINED LEUCOMONZOGRANITE																								
n=64	AVG	195 72	380 89	48 05	81 63	11 66	9 22	23 92	20 50	0 36	18 58	51 41	2 75	2 03	3 42	14 53	9 19	5 45	103 95	1013 44	25 53	2 92	13 22	2 59
	STD	91 38	83 57	21 97	21 26	2 84	5 19	4 86	2 82	1 56	6 35	14 27	0 90	1 00	1 03	5 56	3 40	3 53	63 15	665 11	17 30	2 76	6 80	2 41
	MAX	412.	692.	135.	134.	24.	22.	38.	26.	11.	33.	114.	5 0	6 8	5 8	30.	20 6	24 6	431.	4500.	140.	18 0	41.	13.
	MIN	48.	194.	16.	44.	6.	0.	14.	15.	0.	0.	19.	1 0	0 9	1 2	6.	3 9	2 0	21.	150.	0.	0 6	3.	0.
INTRUSIVE SUITE																								
n=25	AVG	169 88	185 08	47 44	60 48	7 52	8 96	17 40	20 84	17 04	26 68	38 48	2 12	1 30	3 30	9 66	4 98	7 16	61 16	245 00	25 00	2 34	9 32	2 92
	STD	121 86	53 55	34 48	28 11	3 07	7 20	4 20	6 69	76 83	17 23	70 21	0 95	0 94	1 39	6 32	3 00	16 37	21 97	140 64	7 75	3 89	3 55	6 41
	MAX	502	295.	196.	137	16.	25.	29.	50.	393.	104.	117.	5 0	3 3	6 6	30.	15 0	86 7	114.	500.	50.	19 0	21.	34.
	MIN	5.	30.	2.	25.	3.	0.	11.	15.	0.	14.	17.	1 0	0 0	0 5	2.	0 8	1 4	8.	65.	15.	0 0	5.	1.
HORNBLENDE-BIOTITE MONZOGRANITE																								
n=44	AVG	350 68	255 05	80 45	123 23	13 32	20 43	23 82	20 75	2 32	22 34	60 16	3 70	1 71	4 99	23 05	12 65	4 51	89 80	826 25	26 23	11 70	9 70	2 16
	STD	85 75	36 72	23 58	19 81	1 69	9 93	2 84	2 53	8 37	10 39	28 60	0 92	0 40	1 43	5 08	3 24	1 56	26 46	319 81	7 91	52 09	4 19	3 80
	MAX	552.	347.	161.	161.	16.	38.	30.	26.	55.	83.	234.	6 0	2 4	8 6	34.	20 6	8 5	182.	2150.	50.	352 0	21.	26.
	MIN	105.	178.	33.	63.	9.	0.	17.	16.	0.	11.	17.	1 0	0 7	2 8	9.	4 4	1 9	18.	395.	13.	0 7	0.	0.
BIOTITE MONZOGRANITE																								
n=68	AVG	491 11	183 92	118 06	158 58	11 39	35 44	32 25	19 48	5 30	19 53	65 82	5 26	1 47	8 45	28 19	11 50	3 76	79 34	611 65	23 67	4 07	6 69	1 34
	STD	112 25	30 70	27 03	36 31	1 61	12 78	5 87	2 75	6 76	8 54	15 86	1 40	1 39	2 57	6 25	1 90	1 23	20 43	123 60	9 82	3 72	4 11	1 12
	MAX	745.	263.	182.	247.	18.	69.	58.	27.	31.	50.	138.	8 0	12 0	14 0	41.	16 0	7 6	133.	985.	65.	20 0	22.	6.
	MIN	203.	132.	53.	93.	7.	7.	22.	13.	0.	0.	34.	3 0	0 8	1 5	14.	2 5	1 9	10.	280.	0.	1 0	0.	0.
MAFIC PORPHYRY																								
n=5	AVG	509 20	196 40	117 80	154 40	11 00	43 00	25 20	21 20	3 40	17 80	63 40	4 00	1 36	8 02	28 20	11 60	3 86	73 20	658 00	24 80	4 44	10 00	0 80
	STD	205 46	25 52	22 30	41 94	1 26	16 20	3 66	2 64	3 07	4 58	11 88	1 10	0 22	1 35	7 14	2 58	0 55	23 19	41 67	4 71	2 51	4 34	0 40
	MAX	888.	220.	151.	222.	12.	69.	32.	26.	8.	25.	74.	6 0	1 6	9 4	38.	16 0	4 4	95.	710.	30.	8 2	15.	1.
	MIN	762.	153.	89.	90.	9.	20.	22.	19.	0.	12.	43.	3 0	1 1	5 5	16.	8 0	2 9	31.	550.	19.	1 2	2.	0.
GRANODIORITE																								
n=57	AVG	666 86	149 28	170 61	192 86	12 21	55 30	32 14	20 79	7 04	16 51	78 47	6 33	1 16	11 04	36 30	12 90	2 92	64 84	666 58	20 33	3 15	5 44	0 93
	STD	126 97	29 31	32 32	36 44	1 58	14 44	6 86	2 80	6 66	7 46	44 96	1 29	0 30	2 27	6 06	1 63	0 66	27 82	238 99	9 29	4 07	3 43	0 67
	MAX	1101	303	236.	286.	15.	106.	48.	31.	35.	35.	326.	10 0	2 6	16 0	51.	16 0	4 2	220.	2170.	50.	24 0	14.	3.
	MIN	479.	91.	108.	97.	8.	27.	16.	10.	0.	0.	43.	3 0	0 6	5 7	21.	8 4	1 3	33.	330.	0.	0 0	0.	0.
STANDARD (1)																								
n=34	AVG	348 12	65 38	314 76	104 53	9 76	28 94	16 88	19 50	2 18	6 82	40 62	3 00	1 09	5 38	17 74	5 83	2 18	48 32	301 03	20 76	2 09	4 56	0 82
	STD	5 81	1 99	3 19	1 79	0 91	2 14	1 11	2 12	2 46	5 36	2 46	0 34	0 91	0 43	1 48	0 30	0 18	10 26	38 06	5 60	0 22	3 85	0 62
	MAX	360	70.	320.	109.	11.	36.	19.	24.	7.	20.	46.	4 0	4 2	6 4	20.	8 5	2 7	84.	490.	30.	2 8	20.	2.
	MIN	337.	62.	308.	101.	8.	24.	15.	17.	0.	0.	35.	2 0	0 6	3 9	13.	5 4	1 8	27.	270.	0.	1 7	0.	0.
STANDARD (2)																								
n=34	AVG	438 03	218 76	108 03	140 38	10 35	25 91	27 62	19 88	0 74	20 74	66 82	3 97	1 34	5 95	24 96	11 61	2 61	116 76	657 94	19 91	2 74	14 00	1 12
	STD	6 75	3 93	1 46	2 65	1 30	2 36	2 58	2 15	1 50	3 90	2 56	0 66	0 90	0 64	3 59	1 30	0 58	25 12	58 03	5 29	0 34	2 87	0 72
	MAX	451	228	111	145	13.	31	33	25	7	30.	73	5 0	4 4	7 2	29	13 0	5 8	150	765	30.	4 3	19	3.
	MIN	431	212	105.	135	8	21	24	16	0	11.	63	1 0	0 8	2 9	7	4 9	2 2	58	525	10.	2 2	9	0

Units are listed in decreasing Thornton-Tuttle Differentiation Index (DIFFE)

Explanation: AVG - average, STD - standard deviation, MAX - maximum value, MIN - minimum value, C I P W norm (wt %) calculations as follows: Q - quartz, OR - orthoclase, AB - albite, AN - anorthite, C - corundum, EN - enstatite, IL - ilmenite, MH - hematite, HY - hypersthene, RU - rutile, AP - apatite, R_Q - ratio quartz, R_AB - ratio albite, R_OR - ratio orthoclase (R_Q+R_AB+R_OR=1001), A_CNK - moles of Al_2O_3/moles ($CaO+Na_2O+K_2O$), DIFFE - Thornton-Tuttle Differentiation Index, COLOR - Colour Index, XTLNE - Crystallisation Index

11D/05

SAMPLE	D05-0002	D05-0003	D05-0005	D05-0015	D05-0015-2	D05-0016-1	D05-0016-2	D05-0018	D05-3043-1
UNIT	DCagHF	DClaHI	DCagHF	DClaHI	DClaHI	DCagP	DCagP	DCagP	DCagHF
SIO2	71.90	73.23	69.11	72.14	72.09	72.57	70.66	69.50	69.95
TIO2	0.32	0.21	0.44	0.23	0.29	0.31	0.41	0.44	0.40
AL203	14.33	14.01	15.25	14.40	14.45	14.03	14.63	14.96	15.10
FE203	2.53	2.24	3.31	2.10	2.34	2.53	2.97	3.18	2.96
MNO	0.07	0.07	0.07	0.05	0.05	0.06	0.06	0.07	0.07
MGO	0.98	0.85	1.14	1.21	1.21	1.25	1.52	1.25	1.41
CAO	1.08	0.73	1.32	0.92	0.87	1.06	1.37	1.44	1.54
NA20	3.31	3.39	3.23	3.93	3.44	3.39	3.56	3.13	3.62
K20	4.34	4.35	4.60	4.29	4.68	4.57	4.18	4.64	4.13
P205	0.21	0.21	0.27	0.18	0.25	0.17	0.19	0.18	0.20
H20	0.60	0.60	0.70	0.50	0.40	0.40	0.40	0.60	0.70
Q	33.15	34.86	29.30	29.74	31.29	30.48	29.41	29.43	28.41
OR	25.91	25.91	27.56	25.52	27.77	26.99	24.84	27.78	24.58
AB	28.27	28.89	27.68	33.43	29.20	30.33	30.26	26.81	30.82
AN	4.02	2.26	4.84	3.40	2.69	4.14	5.58	6.04	6.37
C	2.75	2.92	3.24	2.06	2.75	1.65	2.22	2.63	2.37
EN	2.46	2.13	2.88	3.03	3.02	3.11	3.80	3.15	3.53
IL	0.15	0.15	0.15	0.11	0.11	0.13	0.13	0.15	0.15
HM	2.55	2.26	3.35	2.11	2.35	2.53	2.98	3.22	2.98
MY	2.46	2.13	2.88	3.03	3.02	3.11	3.80	3.15	3.53
RU	0.24	0.13	0.37	0.17	0.23	0.24	0.34	0.37	0.32
AP	0.49	0.49	0.63	0.42	0.58	0.39	0.44	0.42	0.47
R_Q	37.96	38.88	34.66	33.54	35.45	34.72	34.80	35.03	33.90
R_AB	32.37	32.22	32.74	37.70	33.08	34.54	35.81	31.90	36.77
R_OR	29.67	28.90	32.60	28.77	31.46	30.74	29.39	33.06	29.33
A_CNK	1.18	1.21	1.20	1.13	1.17	1.10	1.14	1.17	1.14
DIFNI	87.33	89.66	84.54	88.69	88.27	87.81	84.50	84.02	83.81
COLNI	5.17	4.54	6.38	5.25	5.48	5.76	6.91	6.52	6.66
XTLNI	5.75	3.76	6.86	5.53	4.81	6.32	8.24	8.25	8.85
BA	320	178	393	234	321	327	412	640	472
RB	223	253	253	226	258	192	190	176	194
SR	97	59	93	84	78	88	122	151	132
HF	3	2	5	3	4	4	5	4	4
ZR	107	81	143	90	116	118	135	142	147
TA	1.6	1.8	2.4	1.3	1.4	1.2	1.3	1.1	1.0
NB	10	11	14	10	12	10	10	11	13
SC	5.3	4.3	8.0	4.7	4.5	5.2	6.8	7.2	6.8
V	23	12	30	18	16	22	29	31	28
LA	21	14	31	16	22	21	27	30	28
Y	23	24	26	26	22	28	24	27	27
GA	25	21	20	23	24	19	21	18	24
TH	10.0	7.7	13.0	8.7	11.0	11.0	13.0	12.0	13.0
U	5.4	5.9	8.0	3.3	7.8	4.2	3.1	2.2	5.9
LI	97	82	78	95	95	79	81	65	91
F	550	530	850	610	890	580	590	550	730
B	25	30	30	30	40	25	30	25	30
AS	0.9	2.8	3.8	2.1	3.6	1.8	1.8	3.3	2.6
SN	13	12	12	3	8	8	9	8	7
W	1	1	1	1	1	1	1	1	1
CU	0	0	0	0	0	0	0	5	0
PB	19	21	19	19	26	27	25	20	29
ZN	52	44	58	43	47	53	53	54	62

SAMPLE	005-3051	005-3052	005-3059	005-3060	005-3098-3	005-3099	005-3105
UNIT	DClaNI	DCaqNF	DCaqap	DCaqap	DCaqP	DCaqNF	DCaqNF
SIO2	73.41	68.74	70.13	67.94	69.75	71.01	70.37
TIO2	0.21	0.49	0.29	0.56	0.46	0.37	0.32
AL203	13.92	15.42	14.65	14.84	14.93	14.87	15.18
FE203	2.03	3.50	2.50	3.98	3.48	2.72	2.51
MNO	0.06	0.07	0.07	0.08	0.08	0.06	0.05
MGO	1.03	1.50	3.60	2.12	1.32	1.19	1.24
CAO	0.84	1.73	1.21	2.32	1.40	1.16	0.91
NA20	3.64	3.46	3.63	4.56	3.13	3.66	3.11
K20	4.43	4.31	4.14	3.49	4.22	4.67	5.17
P205	0.19	0.17	0.20	0.20	0.19	0.25	0.25
H20	0.30	0.40	0.50	0.70	0.90	0.40	0.70
Q	32.55	26.80	25.65	20.57	31.27	28.29	29.65
OR	26.27	25.65	24.39	20.62	25.22	27.63	30.86
AB	30.87	29.45	30.58	38.55	26.76	30.98	26.55
AN	2.93	7.52	4.67	9.70	5.76	4.12	2.90
C	2.07	2.34	2.46	0.00	3.15	2.28	3.44
EN	2.57	3.76	8.93	5.10	3.32	2.96	3.12
IL	0.13	0.15	0.15	0.17	0.17	0.13	0.11
HM	2.03	3.52	2.49	3.98	3.52	2.72	2.53
HY	2.57	3.76	8.93	5.10	3.32	2.96	3.12
RU	0.14	0.41	0.21	0.47	0.37	0.30	0.27
AP	0.44	0.40	0.46	0.46	0.45	0.58	0.59
R_Q	36.29	32.72	31.82	25.79	37.56	32.55	34.06
R_AB	34.42	35.96	37.93	48.34	32.14	35.65	30.50
R_OR	29.29	31.32	30.25	25.87	30.30	31.80	35.45
A_CNK	1.13	1.14	1.16	0.96	1.22	1.13	1.23
DIFNI	89.68	81.91	80.62	79.74	83.26	86.90	87.05
COLNI	4.73	7.43	11.57	9.63	7.01	5.81	5.76
XTLNI	4.73	10.15	10.93	13.66	8.09	6.20	5.09
BA	272	552	262	446	484	415	501
RB	237	178	220	182	184	245	258
SR	67	161	89	151	125	89	99
HF	3	5	3	3	5	4	4
ZR	91	161	90	148	153	123	116
TA	1.4	1.0	1.1	1.6	1.2	1.6	1.4
NB	11	11	10	12	11	14	13
SC	4.3	8.6	8.8	5.5	7.7	5.8	4.8
V	14	38	20	50	33	23	18
LA	16	32	27	16	31	23	22
Y	23	30	22	22	30	22	22
GA	21	26	19	20	19	22	26
TH	8.5	12.0	12.0	8.0	12.0	11.0	11.0
U	3.0	3.1	3.6	4.4	2.9	4.1	4.0
LI	99	82	95	94	88	97	89
F	560	730	710	590	730	925	690
B	35	25	20	30	25	35	30
AS	1.4	1.1	6.1	2.4	1.0	2.6	1.0
SN	6	5	15	12	1	9	4
W	2	1	1	1	1	1	1
CU	0	6	0	4	2	0	0
PB	23	21	18	14	19	33	29
ZN	40	57	43	74	64	56	58

SAMPLE	D12-0001	D12-0001-2	D12-0004	D12-0004-2	D12-0021-1	D12-0021-2	D12-0021-3	D12-0022-2	D12-0023-1
UNIT	BClaT	Grei	BClaT	BClaT	BCaplF	BCaplF	BCaplF	BCaplF	BCaplF
SIO2	76.08	76.60	74.31	73.68	71.11	71.44	72.34	70.77	70.05
TIO2	0.10	0.13	0.22	0.22	0.45	0.42	0.36	0.45	0.44
AL203	12.94	12.93	14.36	14.67	14.27	14.16	14.09	14.72	14.96
FE203	1.64	1.80	2.20	2.02	3.18	3.13	2.81	3.18	2.94
MNO	0.05	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06
MGO	0.63	0.91	0.75	0.83	1.47	1.01	0.99	1.08	1.36
CAO	0.28	0.17	0.48	0.59	1.16	1.17	1.11	1.16	1.13
NA20	2.70	2.32	3.20	3.53	3.85	3.30	3.10	3.21	3.41
K20	4.34	4.35	4.68	4.43	4.12	4.18	4.24	4.43	4.64
P205	0.16	0.19	0.19	0.26	0.26	0.25	0.27	0.28	0.26
H20	1.00	1.20	0.60	0.80	0.50	0.70	0.60	0.80	0.60
Q	43.18	45.30	36.00	34.31	29.01	33.22	35.20	32.03	28.94
OR	25.95	25.85	27.56	26.13	24.39	24.94	25.24	26.38	27.65
AB	23.09	19.72	26.95	29.78	32.60	28.17	26.39	27.34	29.07
AN	0.21	0.00	1.13	1.22	4.06	4.20	3.76	3.95	3.93
C	3.76	4.42	3.59	3.60	1.99	2.70	3.05	3.22	2.91
EN	1.59	2.28	1.86	2.06	3.66	2.54	2.48	2.71	3.41
IL	0.11	0.09	0.13	0.13	0.13	0.13	0.13	0.13	0.13
HM	1.66	1.81	2.19	2.01	3.18	3.16	2.83	3.20	2.96
HY	1.59	2.28	1.86	2.06	3.66	2.54	2.48	2.71	3.41
RU	0.04	0.09	0.15	0.15	0.38	0.36	0.29	0.38	0.38
AP	0.42	0.44	0.44	0.60	0.60	0.59	0.63	0.65	0.61
R_Q	46.82	49.85	39.77	38.03	33.74	38.48	40.53	37.36	33.79
R_AB	25.04	21.70	29.78	33.01	37.91	32.63	30.40	31.88	33.93
R_OR	28.14	28.45	30.45	28.96	28.36	28.89	29.07	30.76	32.28
A_CNK	1.34	1.46	1.28	1.26	1.11	1.17	1.20	1.21	1.18
DIFNI	92.21	90.88	90.51	90.22	85.99	86.33	86.83	85.75	85.66
COLNI	3.35	4.17	4.18	4.20	6.97	5.82	5.44	6.04	6.50
XTLNI	1.32	1.60	2.44	2.67	6.62	5.98	5.50	5.85	6.33
BA	78	122	170	240	325	304	303	363	466
RB	248	285	273	286	236	235	226	238	249
SR	18	20	44	62	89	91	79	92	106
HF	2	2	2	2	6	3	3	4	4
ZR	63	68	89	79	152	139	123	140	139
TA	1.7	1.9	1.8	1.8	1.9	0.7	1.4	1.6	1.7
NB	8	9	12	11	16	13	13	16	14
SC	1.8	2.5	4.3	3.7	7.2	4.9	5.2	5.9	5.7
V	3	2	13	12	36	30	20	28	32
LA	8	10	15	13	30	17	22	26	24
Y	19	20	26	24	28	25	24	24	24
GA	19	23	21	20	22	20	17	18	23
TH	5.1	5.7	7.6	5.9	13.0	5.7	10.0	12.0	11.0
U	3.4	6.5	3.9	4.5	8.5	1.9	5.6	2.7	3.9
LI	62	48	112	134	113	110	122	126	90
F	580	760	610	630	790	800	740	710	770
B	40	65	25	30	30	20	35	30	30
AS	7.9	4.1	4.1	4.9	2.0	2.0	3.3	1.0	1.7
SN	13	14	10	12	9	3	11	9	7
W	5	7	3	2	1	1	1	1	1
CU	2	0	2	2	0	0	55	3	10
PB	20	14	19	16	24	18	21	22	30
ZN	37	16	136	41	80	54	17	60	57

SAMPLE	B12-0028	B12-0028-2	B12-0030-3	B12-0030-C	B12-0033	B12-0033-3	B12-0035	B12-0037	B12-0039
UNIT	BCogSL	Pega	BClsNI	BClsNI	BCogNF	BCogNF	BCogNF	BCogNF	BCogNF
SIO2	69.28	72.86	72.53	70.31	70.40	71.06	70.78	71.72	71.39
TIO2	0.51	0.07	0.28	0.24	0.46	0.42	0.38	0.37	0.37
AL203	15.10	15.73	14.43	15.57	14.83	14.37	14.80	14.46	14.57
FE203	3.71	1.33	2.26	2.07	3.22	3.19	2.65	2.61	2.57
MNO	0.07	0.08	0.04	0.04	0.08	0.07	0.06	0.06	0.05
MGO	1.34	0.68	0.86	1.12	1.08	1.52	1.19	1.26	1.26
CAO	1.68	0.66	0.90	0.96	1.05	0.66	0.86	1.03	0.90
NA20	3.40	3.91	3.36	4.18	3.36	3.61	3.82	3.96	3.53
K20	4.13	4.77	4.82	5.02	4.41	4.19	4.83	4.31	4.58
P205	0.18	0.27	0.24	0.23	0.26	0.23	0.26	0.22	0.26
H20	0.60	0.60	0.70	0.40	0.90	1.00	0.60	0.40	0.60
Q	28.77	30.07	32.08	23.75	31.10	31.19	27.28	28.71	30.40
OR	24.58	28.11	28.59	29.77	26.31	24.95	28.68	25.49	27.23
AB	28.94	32.96	28.51	35.46	28.67	30.75	32.44	33.50	30.02
AN	7.20	1.50	2.90	3.27	3.54	1.78	2.57	3.67	2.78
C	2.42	3.57	2.63	2.07	3.27	3.27	2.35	1.93	2.80
EN	3.36	1.69	2.15	2.80	2.71	3.81	2.97	3.14	3.15
IL	0.15	0.13	0.09	0.09	0.17	0.15	0.13	0.13	0.11
HM	3.73	1.29	2.27	2.08	3.25	3.21	2.66	2.61	2.58
HY	3.36	1.69	2.15	2.80	2.71	3.81	2.97	3.14	3.15
RU	0.43	0.00	0.24	0.20	0.37	0.34	0.31	0.30	0.32
AP	0.42	0.62	0.56	0.53	0.61	0.54	0.61	0.51	0.61
R_Q	34.96	32.99	35.97	26.69	36.13	35.90	30.86	32.73	34.68
R_AB	35.17	36.16	31.97	39.85	33.31	35.39	36.70	38.20	34.25
R_OR	29.87	30.84	32.06	33.46	30.56	28.72	32.44	29.07	31.07
A_CNK	1.15	1.23	1.17	1.11	1.21	1.23	1.13	1.11	1.17
DIFNI	82.28	91.15	89.18	88.98	86.08	86.90	88.39	87.71	87.65
COLNI	7.24	3.16	4.50	4.96	6.13	7.17	5.76	5.88	5.85
XTLNI	9.35	2.68	4.41	5.23	5.44	4.45	4.66	5.87	4.99
BA	584	123	319	288	390	247	366	264	369
RB	173	234	261	246	237	235	278	240	246
SR	145	32	78	89	106	80	89	80	89
HF	4	1	3	3	5	4	4	4	3
ZR	166	40	103	102	141	135	122	119	133
TA	1.1	1.4	1.5	1.3	1.8	1.5	1.9	1.8	1.4
NB	12	7	11	11	14	15	15	14	13
SC	7.7	1.7	4.3	4.2	6.2	6.3	5.6	5.5	5.2
V	33	7	21	14	35	32	27	23	22
LA	31	6	17	20	25	23	23	22	23
Y	31	11	22	26	24	27	23	24	23
GA	22	24	18	25	20	24	22	20	24
TH	12.0	2.5	8.8	10.0	11.0	10.0	11.0	11.0	13.0
U	3.4	4.5	6.9	6.1	3.0	4.1	2.4	3.4	5.9
LI	96	64	106	63	89	63	96	95	94
F	610	230	630	675	740	540	780	650	690
B	25	40	30	50	20	35	40	30	35
AS	1.8	4.8	3.9	3.5	3.1	3.1	1.6	1.4	3.7
SN	5	13	7	5	12	12	8	6	10
W	1	1	1	1	1	5	1	1	2
CU	3	0	0	1	0	0	0	0	0
PB	20	20	21	25	21	83	25	22	21
ZN	59	26	44	46	85	234	60	55	60

SAMPLE	D12-0040-1	D12-0042	D12-0043	D12-0044	D12-0045-C	D12-0048-3	D12-0049	D12-0050	D12-0051
UNIT	BCaplF	BCaplF	BClaH	BClaT	BCaplF	BCapP	BCapP	BClaH	BClaH
SIO2	71.98	71.77	71.65	74.42	71.83	70.83	69.30	72.97	73.55
TIO2	0.31	0.35	0.37	0.05	0.27	0.38	0.33	0.21	0.13
AL203	14.64	14.28	14.27	14.48	14.76	14.64	15.88	14.35	14.56
FE203	2.25	2.33	2.88	1.14	2.12	2.89	2.66	2.14	1.88
MNO	0.05	0.04	0.06	0.04	0.06	0.06	0.07	0.07	0.08
MGO	1.30	1.37	1.05	0.40	1.12	1.31	1.04	0.77	0.58
CAO	0.70	0.52	1.00	0.34	0.71	1.32	1.25	0.59	0.51
NA20	3.84	3.85	3.01	3.99	4.89	3.64	3.50	3.14	3.30
K20	4.79	4.62	4.72	4.10	4.49	4.61	5.20	4.89	4.63
P205	0.28	0.27	0.23	0.33	0.30	0.14	0.16	0.19	0.21
H20	0.60	0.80	0.70	0.70	0.60	0.60	0.60	0.70	0.70
Q	28.61	29.46	33.25	35.12	23.71	27.66	25.40	34.33	35.46
OR	28.29	27.49	28.13	24.40	26.41	27.32	30.95	29.12	27.34
AB	32.44	32.77	25.66	33.97	41.15	30.85	29.79	26.75	28.08
AN	1.64	0.82	3.48	0.00	1.55	5.64	5.19	1.69	1.16
C	2.53	2.66	2.96	3.50	1.27	1.60	2.62	3.29	3.71
EN	3.23	3.43	2.63	1.00	2.77	3.27	2.61	1.93	1.45
IL	0.11	0.09	0.13	0.09	0.13	0.13	0.15	0.15	0.17
HM	2.25	2.34	2.90	1.15	2.11	2.90	2.68	2.15	1.89
HY	3.23	3.43	2.63	1.00	2.77	3.27	2.61	1.93	1.45
RU	0.25	0.31	0.30	0.00	0.20	0.31	0.25	0.13	0.04
AP	0.65	0.63	0.54	0.77	0.69	0.33	0.37	0.44	0.49
R_Q	32.02	32.84	38.20	37.57	25.98	32.23	29.49	38.06	38.93
R_AB	36.31	36.52	29.48	36.33	45.08	35.95	34.59	29.65	30.83
R_OR	31.67	30.64	32.32	26.10	28.94	31.83	35.93	32.29	30.24
A_CNK	1.15	1.16	1.20	1.25	1.04	1.09	1.16	1.24	1.28
DIFNI	89.34	89.72	87.05	93.49	91.27	85.83	86.14	90.20	91.08
COLNI	5.59	5.86	5.67	2.24	5.01	6.29	5.43	4.24	3.52
ITLNI	3.90	3.22	5.33	0.70	3.49	7.93	7.01	3.05	2.18
BA	305	349	374	33	279	477	470	216	127
RB	275	270	220	499	264	178	199	287	339
SR	70	75	105	7	65	124	124	60	28
HF	3	3	3	1	3	5	3	3	2
ZR	124	131	127	34	107	137	110	80	64
TA	1.8	2.0	1.3	3.8	1.9	1.0	1.2	1.9	2.3
NB	14	14	13	14	14	10	10	11	11
SC	4.9	4.8	5.8	2.3	4.2	6.6	5.3	4.3	3.5
V	20	15	21	3	13	27	23	10	8
LA	22	25	23	2	17	24	23	14	9
Y	23	24	25	14	20	34	28	24	23
GA	23	23	21	24	24	24	20	21	23
TH	12.0	14.0	11.0	1.6	9.3	11.0	10.0	8.2	7.0
U	5.2	4.1	3.4	19.0	4.9	3.4	3.0	4.6	3.2
LI	83	90	80	230	95	75	84	101	136
F	700	575	900	1400	770	520	550	800	990
B	30	30	15	25	40	25	20	20	20
AS	3.8	18.0	2.7	20.0	5.1	1.2	2.0	1.0	1.9
SN	10	13	4	27	12	5	8	14	21
W	2	2	1	8	2	1	1	3	6
CU	3	0	3	0	0	0	0	0	0
PB	25	22	19	16	21	30	23	23	19
ZN	50	57	65	44	55	53	48	48	54

SAMPLE	D12-0052	D12-0058-1	D12-0066	D12-0069	D12-0074	D12-0074-2	D12-0077-2	D12-0077-2-C	D12-0081
UNIT	BClaMX	BCagMF	BClaT	BClaMX	BClaTp	BClaTp	BCgd	BCgd	BClaMX
SIO2	73.55	70.80	75.14	72.65	73.59	70.59	68.16	69.19	72.59
TIO2	0.14	0.46	0.08	0.17	0.25	0.36	0.62	0.48	0.28
AL2O3	14.45	14.66	14.11	14.95	14.33	15.17	15.45	15.23	14.15
FE2O3	1.80	3.07	1.34	1.92	2.04	2.86	4.41	3.55	2.81
MNO	0.06	0.06	0.04	0.05	0.04	0.06	0.10	0.08	0.06
MGO	0.64	1.31	0.52	0.66	1.13	1.30	1.50	1.63	0.85
CAO	0.53	1.17	0.36	0.50	0.66	0.98	1.81	0.96	0.63
NA2O	3.38	3.49	3.66	3.30	3.83	3.83	3.51	3.66	3.29
K2O	4.83	4.45	4.31	4.84	4.42	3.85	3.64	4.69	4.37
P2O5	0.23	0.27	0.26	0.28	0.27	0.23	0.21	0.18	0.18
H2O	0.50	0.50	0.70	0.70	0.70	1.00	0.60	0.70	0.70
Q	34.08	29.83	36.59	33.88	31.87	30.41	28.45	26.05	34.88
OR	28.68	26.39	25.54	28.82	26.00	22.95	21.66	27.84	26.05
AB	28.71	29.60	31.02	28.11	32.22	32.66	29.87	31.07	28.06
AN	1.13	4.05	0.08	0.65	1.50	3.38	7.65	3.60	1.96
C	3.26	2.63	3.40	4.07	2.67	3.50	2.96	2.82	3.32
EN	1.60	3.27	1.30	1.65	2.80	3.26	3.76	4.07	2.13
IL	0.13	0.13	0.09	0.11	0.09	0.13	0.22	0.17	0.13
HM	1.81	3.08	1.34	1.93	2.03	2.88	4.44	3.56	2.83
HY	1.60	3.27	1.30	1.65	2.80	3.26	3.76	4.07	2.13
RU	0.07	0.39	0.04	0.11	0.20	0.29	0.51	0.39	0.21
AP	0.54	0.63	0.60	0.65	0.62	0.54	0.49	0.42	0.42
R_Q	37.26	34.76	39.28	37.31	35.37	35.35	35.57	30.66	39.19
R_AB	31.39	34.49	33.30	30.95	35.77	37.97	37.35	36.58	31.53
R_OR	31.36	30.75	27.42	31.74	28.86	26.68	27.08	32.77	29.28
A_CNK	1.23	1.16	1.24	1.29	1.17	1.24	1.19	1.19	1.25
DIFNI	91.47	85.83	93.16	90.82	90.09	86.02	79.98	84.96	88.99
COLNI	3.54	6.48	2.73	3.70	4.91	6.27	8.41	7.81	5.10
XTLNI	2.25	6.34	0.99	1.81	3.46	5.67	10.28	6.45	3.46
BA	104	399	50	173	252	276	588	536	222
RB	330	253	427	340	251	283	169	195	225
SR	27	94	19	37	49	106	179	140	58
HF	1	4	1	2	3	3	6	5	4
ZR	59	141	37	74	101	111	181	163	117
TA	2.6	1.6	3.5	2.6	1.7	2.0	1.3	1.0	1.7
NB	11	14	13	14	13	11	13	11	11
SC	3.6	6.2	4.1	3.7	3.7	5.4	11.0	7.9	5.6
V	5	33	3	8	19	26	50	37	17
LA	10	26	5	12	14	17	37	34	23
Y	21	25	16	19	20	21	30	38	34
GA	19	21	20	22	19	22	22	27	20
TH	6.5	12.0	3.5	6.7	11.0	7.0	12.0	12.0	12.0
U	2.9	2.6	5.2	8.1	3.3	7.2	3.9	2.5	3.3
LI	137	94	157	157	55	140	103	87	63
F	945	730	1000	1000	1325	1000	680	680	560
B	25	20	25	15	30	15	20	30	20
AS	1.6	0.8	1.4	3.0	1.9	9.4	2.9	1.0	1.6
SN	16	6	24	18	16	29	5	3	16
W	2	1	6	1	6	4	1	1	1
CU	0	0	0	0	0	0	0	0	0
PB	20	24	14	18	15	34	14	25	17
ZN	50	61	32	51	23	95	64	69	33

SAMPLE	D12-0082	D12-0085-2	D12-0095	D12-0098	D12-0099	D12-0100	D12-0103-1	D12-0103-2	D12-0103-3
UNIT	BCgd	BCmgSL	BCmgSL	BCmgSL	BCmgSL	BCleTe	BCleMI	BCleMI	BCleMI
SIO2	66.89	70.19	68.71	70.13	67.29	75.08	71.81	72.12	73.10
TIO2	0.66	0.38	0.53	0.42	0.66	0.05	0.27	0.24	0.14
AL203	15.50	14.99	15.43	15.12	15.43	14.23	14.57	14.50	14.53
FE203	4.40	2.92	3.78	3.26	4.67	1.21	2.35	2.17	1.74
MNO	0.09	0.07	0.08	0.09	0.10	0.08	0.05	0.05	0.06
MGO	1.72	1.17	1.68	1.34	1.63	0.54	0.90	0.77	0.69
CAO	1.89	1.18	1.08	0.96	1.72	0.28	0.88	0.76	0.43
NA20	3.81	3.41	3.55	3.41	3.49	3.75	2.99	3.39	3.14
K20	3.99	4.64	4.45	4.52	3.86	4.38	4.89	4.77	4.74
P205	0.22	0.19	0.20	0.19	0.21	0.17	0.21	0.24	0.27
H20	0.70	0.50	0.80	0.70	0.80	0.60	0.50	0.60	0.60
Q	23.65	29.09	26.90	29.63	26.93	35.65	33.41	32.35	35.91
OR	23.80	27.68	26.46	26.89	23.05	25.97	29.24	28.50	28.37
AB	32.50	29.10	30.19	29.01	29.81	31.80	25.57	28.97	26.88
AN	8.00	4.65	4.07	3.54	7.23	0.28	3.02	2.22	0.37
C	2.02	2.69	3.30	3.34	2.91	3.22	3.29	2.98	4.14
EN	4.32	2.94	4.21	3.36	4.10	1.35	2.27	1.94	1.74
IL	0.19	0.15	0.17	0.19	0.22	0.10	0.11	0.11	0.13
HM	4.44	2.95	3.80	3.28	4.71	1.13	2.38	2.19	1.76
HY	4.32	2.94	4.21	3.36	4.10	1.35	2.27	1.94	1.74
RU	0.56	0.30	0.44	0.32	0.55	0.00	0.22	0.19	0.07
AP	0.51	0.44	0.47	0.44	0.49	0.40	0.49	0.56	0.63
R_Q	29.58	33.88	32.20	34.64	33.76	38.16	37.87	36.02	39.39
R_AB	40.66	33.89	36.14	33.92	37.36	34.04	28.99	32.25	29.49
R_OR	29.77	32.24	31.67	31.44	28.89	27.80	33.14	31.73	31.12
A_CNK	1.11	1.17	1.22	1.23	1.18	1.25	1.23	1.20	1.31
DIFNI	79.95	85.88	83.54	85.53	79.79	93.41	88.23	89.82	91.15
COLNI	8.95	6.04	8.18	6.83	9.03	2.69	4.75	4.24	3.63
ITLNI	11.03	6.71	7.02	5.89	10.10	1.22	4.61	3.58	1.59
BA	648	446	725	500	614	28	242	245	123
RB	157	201	249	222	165	327	234	266	350
SR	160	112	150	129	182	14	69	68	27
HF	5	3	5	4	6	1	4	3	1
ZR	179	123	173	149	194	42	102	93	64
TA	1.2	1.4	1.1	1.1	1.2	2.4	1.2	1.7	2.8
NB	11	11	13	11	13	9	11	11	13
SC	8.9	6.8	8.2	6.9	10.0	3.1	4.3	3.9	3.3
V	41	23	40	29	49	3	13	13	4
LA	36	26	34	27	37	5	19	16	11
Y	32	28	33	32	32	21	25	22	18
GA	19	18	21	17	20	19	20	20	24
TH	13.0	11.0	12.0	11.0	12.0	4.3	10.0	8.2	7.0
U	3.0	4.8	3.0	2.8	2.8	9.1	6.1	5.8	5.0
LI	78	90	106	128	102	172	58	76	123
F	600	680	860	830	710	560	710	640	1100
B	10	15	30	20	20	20	20	30	30
AS	1.0	1.4	1.4	2.1	3.8	1.2	2.1	3.1	10.0
SN	8	12	9	10	5	22	12	13	24
W	2	2	3	1	2	4	1	2	6
CU	2	4	8	14	6	1	0	3	0
PB	24	21	27	25	21	26	20	18	20
ZN	93	57	100	75	71	34	43	44	54

SAMPLE	D12-0104	D12-0105	D12-0106	D12-0117	D12-0121	D12-0121-1	D12-0121-C	D12-0121-C-2	D12-0122
UNIT	BCagSL	BCgd	BCagSL	BCleT	BCleTe	BCleTe	BCleT	BCleTe	BCleT
SIO2	71.99	69.17	69.63	74.24	74.58	75.29	74.76	75.22	75.32
TIO2	0.27	0.51	0.45	0.12	0.04	0.04	0.06	0.06	0.08
AL203	14.74	14.88	14.92	14.15	14.40	14.16	14.03	14.10	13.79
FE203	2.42	3.62	3.42	1.57	1.32	1.11	1.17	1.31	1.50
MNO	0.06	0.09	0.07	0.05	0.06	0.06	0.05	0.06	0.06
MGO	1.16	1.59	1.19	0.65	0.43	0.70	0.86	0.96	0.58
CAO	0.79	1.53	1.47	0.34	0.29	0.26	0.34	0.26	0.39
NA20	3.40	4.13	3.04	3.33	3.63	4.31	3.41	3.88	3.35
K20	5.07	3.90	4.33	4.63	4.10	4.12	4.49	4.26	4.27
P205	0.15	0.14	0.18	0.22	0.27	0.27	0.21	0.23	0.21
H20	0.50	1.10	0.50	0.70	0.70	0.40	0.60	0.70	0.70
Q	29.78	25.06	31.35	36.31	37.42	33.26	36.53	34.77	38.54
OR	29.97	23.17	25.95	27.58	24.45	24.27	26.72	25.10	25.37
AB	28.75	35.10	26.06	28.37	30.96	36.31	29.03	32.70	28.47
AN	2.94	6.70	6.20	0.25	0.00	0.00	0.31	0.00	0.56
C	2.58	1.42	3.03	3.59	4.02	2.60	3.46	3.09	3.46
EN	2.89	3.98	3.00	1.63	1.08	1.74	2.16	2.38	1.45
IL	0.13	0.19	0.15	0.11	0.08	0.08	0.11	0.11	0.13
HM	2.42	3.64	3.47	1.58	1.28	1.05	1.18	1.29	1.51
HY	2.89	3.98	3.00	1.63	1.08	1.74	2.16	2.38	1.45
RU	0.20	0.41	0.38	0.06	0.00	0.00	0.00	0.00	0.01
AP	0.35	0.33	0.42	0.51	0.63	0.62	0.49	0.53	0.49
R_Q	33.65	30.08	37.61	39.36	40.31	35.44	39.59	37.56	41.72
R_AB	32.49	42.12	31.26	30.75	33.35	38.70	31.46	35.33	30.82
R_OR	33.87	27.80	31.13	29.89	26.34	25.86	28.96	27.12	27.46
A_CNK	1.18	1.08	1.21	1.27	1.32	1.18	1.27	1.23	1.27
DIFNI	88.50	83.33	83.36	92.26	92.84	93.84	92.29	92.57	92.39
COLNI	5.43	7.81	6.62	3.32	2.51	2.94	3.44	3.81	3.09
XTLNI	4.96	9.49	8.30	1.39	0.76	1.22	1.82	1.67	1.58
BA	304	507	474	96	0	11	23	29	40
RB	242	154	177	279	550	509	339	343	319
SR	67	165	126	26	6	5	9	10	16
HF	4	5	4	2	1	1	1	1	1
ZR	107	157	148	61	39	36	39	43	45
TA	1.3	0.8	1.1	1.9	5.5	4.0	2.1	2.2	2.0
NB	12	12	10	10	15	9	8	10	9
SC	4.9	7.5	7.2	3.1	3.2	2.4	2.3	2.4	2.7
V	17	45	33	6	2	0	0	1	7
LA	19	27	30	8	2	0	3	3	5
Y	29	34	31	20	18	20	18	19	17
GA	24	23	21	20	24	24	24	22	21
TH	10.0	10.0	12.0	5.6	3.4	3.4	3.4	3.5	4.2
U	3.8	2.3	2.6	10.0	20.0	20.0	8.3	13.0	11.0
LI	82	63	96	79	280	236	98	86	90
F	590	480	680	480	1200	1100	765	495	660
B	25	30	15	20	20	25	30	30	20
AS	1.5	1.0	1.5	1.5	5.9	6.5	1.7	1.8	4.8
SN	10	1	9	13	48	44	23	18	19
W	1	1	1	3	10	6	5	4	4
CU	0	0	0	0	5	7	0	0	4
PB	27	22	21	21	19	27	31	20	21
ZN	51	82	59	44	65	51	43	37	43

SAMPLE	D12-0122-2	D12-0122-4	D12-0122-C	D12-0130-4	D12-0130-6	D12-0130-8	D12-0134	D12-0134-C	D12-0140
UNIT	Epis	BClaT	BCapSL	BCpd	BCpd	BCpd	BCpd	BCpd	BClaT
SIO2	65.42	75.30	72.85	67.09	66.47	67.55	67.63	67.71	74.85
TIO2	0.03	0.03	0.35	0.59	0.67	0.59	0.59	0.60	0.06
AL2O3	19.69	14.14	13.84	15.90	15.86	15.90	15.70	15.46	13.93
FE2O3	0.28	0.99	2.83	4.04	4.53	4.24	4.16	4.21	1.20
MNO	0.02	0.04	0.07	0.09	0.08	0.09	0.08	0.10	0.04
MGO	0.71	0.44	1.56	1.88	1.96	1.57	1.56	1.65	0.54
CAO	0.26	0.47	0.85	1.93	2.33	1.93	1.77	1.97	0.35
NA2O	7.36	3.61	3.52	3.87	3.56	3.55	3.42	3.36	3.41
K2O	4.92	4.49	4.01	3.99	3.64	3.94	3.77	4.00	4.75
P2O5	0.20	0.14	0.17	0.20	0.21	0.19	0.18	0.21	0.27
H2O	0.30	0.60	0.70	0.60	0.50	0.70	0.80	0.50	0.50
Q	2.93	35.96	33.33	23.02	24.67	25.99	28.00	26.95	36.23
OR	29.37	26.65	23.71	23.70	21.68	23.41	22.56	23.83	28.26
AB	62.84	30.65	29.77	32.88	30.33	30.17	29.27	28.64	29.02
AN	0.00	1.42	3.10	8.30	10.26	8.37	7.69	8.46	0.00
C	2.27	2.83	2.57	2.19	2.34	2.75	3.24	2.54	3.19
EN	1.78	1.10	3.88	4.70	4.91	3.93	3.93	4.14	1.35
IL	0.04	0.06	0.15	0.19	0.17	0.19	0.17	0.22	0.09
HM	0.28	0.96	2.83	4.06	4.56	4.26	4.21	4.24	1.21
HY	1.78	1.10	3.88	4.70	4.91	3.93	3.93	4.14	1.35
RU	0.01	0.00	0.27	0.49	0.58	0.49	0.51	0.49	0.02
AP	0.47	0.33	0.39	0.47	0.49	0.44	0.42	0.49	0.63
R_Q	3.08	38.56	38.40	28.92	32.17	32.66	35.08	33.93	38.74
R_AB	66.05	32.87	34.29	41.31	39.55	37.92	36.66	36.06	31.04
R_OR	30.87	28.58	27.31	29.77	28.27	29.42	28.26	30.01	30.22
A_CNK	1.10	1.21	1.19	1.12	1.13	1.17	1.21	1.15	1.22
DIFNI	95.14	93.26	86.80	79.60	76.68	79.57	79.83	79.42	93.52
COLNI	2.11	2.16	6.86	8.95	9.65	8.38	8.31	8.60	2.65
ITLNI	1.25	2.19	5.82	11.60	13.70	11.12	10.44	11.36	0.95
BA	49	9	295	794	624	550	534	541	16
RB	261	205	198	161	148	144	152	174	277
SR	19	10	85	210	190	181	178	166	13
HF	2	1	4	7	6	6	6	6	1
ZR	49	27	134	197	202	170	174	177	32
TA	1.4	1.2	1.2	1.0	1.1	1.1	1.2	1.1	1.6
NB	6	5	11	11	13	12	11	12	7
SC	1.7	1.3	5.5	9.3	10.0	10.0	10.0	11.0	0.8
V	4	2	26	48	50	45	43	43	1
LA	0	3	23	36	34	34	34	33	3
Y	20	14	29	27	32	29	29	32	12
GA	22	14	21	24	24	18	19	24	24
TH	3.1	2.1	12.0	13.0	12.0	13.0	12.0	11.0	2.1
U	5.4	13.0	5.4	2.4	3.2	2.5	3.4	3.0	15.0
LI	2	68	108	70	64	86	69	59	79
F	300	140	550	590	690	590	530	860	540
B	15	20	35	40	30	20	25	30	25
AS	9.1	1.6	1.8	1.5	24.0	2.5	1.6	8.7	3.1
SN	12	12	6	2	1	10	7	4	14
W	3	1	1	1	1	1	1	1	4
CU	0	0	0	0	7	0	0	5	0
PB	10	24	24	35	23	20	18	21	16
ZN	16	17	52	80	69	54	57	65	23

SAMPLE	B12-0141	B12-0142	B12-3000	B12-3002	B12-3008	B12-3009	B12-3015	B12-3036	B12-3036-5
UNIT	BClaT	BCmgSL	BClaT	BClaT	BClaMI	BClaTp	BCmgMF	BCmgMF	BCmgMF
SIO2	74.76	70.77	74.42	75.67	73.51	71.97	71.57	73.88	70.60
TIO2	0.15	0.37	0.11	0.16	0.18	0.25	0.46	0.21	0.45
AL203	13.92	14.54	13.82	13.00	14.06	14.85	14.32	13.99	14.75
FE203	1.54	3.00	1.69	2.07	2.00	2.15	3.26	1.87	3.20
MNO	0.04	0.07	0.06	0.08	0.05	0.06	0.06	0.05	0.07
MGO	0.65	1.52	0.92	1.07	0.74	0.84	1.13	0.85	1.14
CAO	0.30	0.79	0.28	0.39	0.65	0.87	1.10	0.45	1.23
NA20	3.41	3.58	3.41	2.98	3.11	3.40	3.11	3.40	2.99
K20	4.60	4.30	4.58	4.12	4.47	4.17	4.27	4.54	4.61
P205	0.21	0.18	0.24	0.21	0.26	0.26	0.25	0.25	0.26
H20	0.80	1.00	0.70	0.90	0.50	0.80	0.60	0.80	0.70
Q	36.44	30.29	35.82	40.82	36.89	34.24	33.95	35.37	32.17
OR	27.32	25.66	27.21	24.43	26.70	24.96	25.38	26.99	27.46
AB	28.97	30.56	28.98	25.28	26.57	29.11	26.44	28.91	25.48
AN	0.11	2.77	0.00	0.56	1.54	2.65	3.84	0.60	4.43
C	3.30	3.01	3.26	3.44	3.58	3.83	3.19	3.28	3.25
EN	1.63	3.82	2.30	2.67	1.86	2.12	2.83	2.13	2.86
IL	0.09	0.15	0.13	0.17	0.11	0.13	0.13	0.11	0.15
HM	1.55	3.03	1.70	2.08	2.02	2.18	3.28	1.88	3.22
HY	1.63	3.82	2.30	2.67	1.86	2.12	2.83	2.13	2.86
RU	0.11	0.29	0.04	0.07	0.12	0.18	0.39	0.15	0.37
AP	0.49	0.42	0.56	0.49	0.61	0.61	0.58	0.58	0.61
R_Q	39.29	35.01	38.93	45.09	40.92	38.77	39.58	38.75	37.80
R_AB	31.24	35.32	31.49	27.92	29.47	32.96	30.83	31.68	29.93
R_OR	29.46	29.66	29.57	26.99	29.61	28.26	29.39	29.57	32.27
A_CNK	1.25	1.21	1.25	1.29	1.26	1.27	1.22	1.24	1.21
DIFNI	92.73	86.51	92.01	90.52	90.16	88.31	85.76	91.27	85.11
COLNI	3.26	7.00	4.13	4.92	3.99	4.42	6.23	4.11	6.23
XTLNI	1.25	5.44	1.61	2.43	2.84	4.13	5.82	2.09	6.43
BA	53	325	84	115	155	217	378	105	442
RB	272	204	369	254	299	246	219	278	220
SR	24	99	20	28	45	57	100	33	100
HF	2	5	1	3	3	2	5	2	4
ZR	63	139	59	73	78	84	138	83	140
TA	2.3	1.5	2.3	1.9	1.9	2.7	1.4	2.4	1.7
NB	12	12	12	11	12	13	14	13	14
SC	3.7	6.8	2.9	5.7	3.9	4.6	6.7	3.7	5.7
V	6	30	7	7	10	18	35	12	29
LA	9	24	7	15	14	15	28	15	25
Y	28	30	25	23	21	17	25	20	25
GA	19	25	20	18	24	21	20	22	19
TH	5.6	12.0	5.1	8.6	7.4	6.9	12.0	7.8	11.0
U	6.5	2.5	5.0	4.2	5.8	7.3	5.0	3.8	4.2
LI	37	60	64	72	127	69	87	88	73
F	290	780	405	540	930	850	640	450	640
B	30	35	45	45	30	45	30	30	25
AS	2.2	1.3	1.5	1.1	1.5	6.9	1.6	2.7	2.1
SN	11	2	7	9	13	17	9	15	10
W	6	1	2	42	2	1	1	2	1
CU	0	0	0	0	0	0	1	1	0
PB	17	22	20	21	16	14	18	17	19
ZN	45	69	30	39	43	52	56	44	61

SAMPLE	D12-3037-C	D12-3070-3	D12-3072	D12-3076	D12-3076-4	D12-3077-3	D12-3082	D12-3085-	D12-3094-2
UNIT	DCmpNF	DClaT	DCmpNF-	DClaTp	Grwt	DClaNI	DClaNI	DClaNI.	DCmpP
SIO2	71.39	74.21	70.80	71.92	75.86	74.41	73.15	73.46	71.40
TIO2	0.46	0.13	0.38	0.31	0.32	0.16	0.18	0.17	0.38
AL203	14.21	14.57	14.87	14.72	13.07	13.86	14.01	14.13	14.24
FE203	3.10	1.47	2.62	2.39	2.61	1.74	1.99	1.89	2.95
MNO	0.07	0.06	0.05	0.04	0.05	0.04	0.06	0.07	0.07
MGO	1.52	0.67	1.40	0.97	1.10	0.78	0.99	1.03	2.30
CAO	1.11	0.41	0.74	0.65	0.46	0.52	0.66	0.68	0.92
NA20	3.49	2.23	4.34	3.34	0.57	3.27	3.72	4.13	4.05
K20	4.22	4.20	4.67	4.55	4.47	4.51	4.38	4.63	4.32
P205	0.26	0.35	0.28	0.29	0.29	0.25	0.19	0.16	0.16
H20	0.80	0.90	0.60	1.10	1.90	0.40	0.50	0.50	0.30
Q	31.07	44.89	24.75	33.32	54.26	36.71	32.60	29.06	25.33
OR	25.00	25.26	27.58	27.14	26.76	26.80	26.08	27.29	26.47
AB	29.58	19.18	36.66	28.49	4.88	27.79	31.69	34.82	33.93
AN	3.81	0.00	1.84	1.34	0.39	0.95	2.04	2.32	3.48
C	2.51	6.46	1.99	3.84	7.24	3.26	2.42	1.46	1.38
EN	3.79	1.70	3.48	2.44	2.77	1.95	2.48	2.56	5.67
IL	0.15	0.13	0.11	0.09	0.11	0.09	0.13	0.15	0.15
HM	3.11	1.49	2.62	2.41	2.64	1.75	2.00	1.88	2.92
HY	3.79	1.70	3.48	2.44	2.77	1.95	2.48	2.56	5.67
RU	0.38	0.06	0.32	0.27	0.27	0.12	0.11	0.09	0.30
AP	0.60	0.83	0.65	0.68	0.68	0.58	0.44	0.37	0.37
R_Q	34.27	50.25	27.81	37.46	63.17	40.21	36.07	31.87	29.54
R_AB	34.53	21.47	41.20	32.63	5.68	30.44	35.06	38.19	39.58
R_OR	29.19	28.28	30.99	30.51	31.15	29.35	28.86	29.93	30.88
A_CNK	1.15	1.63	1.10	1.27	1.98	1.24	1.16	1.08	1.08
JIFNI	85.65	89.33	88.99	88.94	85.91	91.30	90.37	91.17	85.73
COLNI	7.05	3.32	6.20	4.93	5.52	3.79	4.61	4.39	8.74
ITLNI	6.47	1.19	4.28	3.04	2.33	2.32	3.78	4.11	7.46
BA	308	58	343	289	230	147	163	146	441
RB	230	470	269	243	370	282	261	298	197
SR	92	20	92	72	14	39	52	46	130
HF	4	2	3	3	3	3	2	3	5
ZR	147	52	137	115	115	72	82	76	136
TA	2.0	4.0	2.0	1.7	1.7	2.1	1.6	1.5	1.1
NB	14	16	16	15	14	12	10	10	12
SC	6.1	3.9	5.4	4.9	4.7	3.6	3.7	3.4	5.4
V	31	7	21	16	20	8	13	9	25
LA	26	8	25	23	18	16	12	11	22
Y	26	18	24	20	20	18	28	28	29
GA	23	23	23	22	22	21	24	20	24
TH	12.0	3.7	13.0	11.0	12.0	9.3	7.4	7.2	12.0
U	3.5	12.0	3.5	3.5	5.0	12.0	4.2	4.1	6.9
LI	97	121	84	56	69	89	88	105	90
F	770	1350	765	760	1000	760	840	870	580
B	30	30	35	30	35	30	45	35	30
AS	2.7	29.0	1.6	8.0	3.8	7.9	3.2	2.6	6.1
SN	13	34	10	15	15	14	10	12	4
W	1	9	3	3	19	3	1	1	1
CU	0	3	0	4	68	0	0	0	0
PB	21	15	23	22	12	19	32	25	25
ZN	58	49	63	49	32	63	88	80	73

SAMPLE	D12-3088	D12-3097	D12-3111	D12-3112	D12-3114	D12-3120	D12-3120-C	D12-3133	D12-3136
UNIT	DCapP	DCapP	DCleNI	DCleT	DCleNI	DCleT	DCleNI	DCpd	DCleNI
SIO2	70.10	69.31	71.77	72.64	72.52	74.85	72.98	68.01	74.17
TIO2	0.36	0.36	0.22	0.14	0.19	0.05	0.13	0.53	0.09
AL203	14.95	15.46	14.70	15.12	14.55	14.24	14.57	15.65	13.64
FE203	2.97	2.78	1.94	1.39	2.03	1.20	1.59	3.88	1.52
MNO	0.08	0.06	0.04	0.03	0.07	0.06	0.04	0.08	0.06
MGO	1.09	1.38	1.08	0.80	0.79	0.56	0.92	1.67	0.68
CAO	1.14	1.13	0.67	0.47	0.79	0.31	0.55	1.41	0.32
NA20	3.17	3.41	4.13	3.45	2.96	3.85	4.06	3.81	3.28
K20	4.75	5.16	4.84	4.67	4.60	4.20	4.67	4.27	4.48
P205	0.14	0.17	0.26	0.37	0.18	0.26	0.25	0.19	0.19
H20	0.60	0.60	0.60	0.80	0.80	0.70	0.40	0.50	0.70
Q	30.17	25.91	26.99	33.79	35.79	35.67	29.70	24.64	37.35
OR	28.45	30.76	28.73	27.87	27.57	24.94	27.69	25.38	26.92
AB	27.16	29.08	35.07	29.46	25.38	32.70	34.43	32.40	28.19
AN	4.80	4.53	1.63	0.00	2.78	0.00	1.09	5.78	0.35
C	2.89	2.63	2.08	4.43	3.74	3.37	2.44	2.66	3.32
EN	2.75	3.46	2.70	2.01	1.99	1.40	2.30	4.18	1.72
IL	0.17	0.13	0.09	0.06	0.15	0.10	0.09	0.17	0.13
HM	3.01	2.80	1.95	1.40	2.06	1.17	1.59	3.90	1.54
HY	2.75	3.46	2.70	2.01	1.99	1.40	2.30	4.18	1.72
RU	0.27	0.29	0.18	0.11	0.11	0.00	0.09	0.44	0.02
AP	0.33	0.40	0.61	0.87	0.42	0.61	0.58	0.44	0.45
R_Q	35.17	30.22	29.73	37.09	40.33	38.23	32.35	29.90	40.40
R_AB	31.66	33.91	38.63	32.32	28.60	35.05	37.50	39.31	30.49
R_OR	33.17	35.87	31.65	30.59	31.07	26.73	30.15	30.80	29.11
A_CNK	1.20	1.17	1.11	1.31	1.29	1.24	1.14	1.16	1.26
DIFNI	85.78	85.75	90.78	91.12	88.74	93.31	91.82	82.42	92.47
COLNI	5.93	6.39	4.73	3.48	4.20	2.72	3.98	8.25	3.40
XTLNI	6.73	6.96	3.52	1.41	4.17	0.98	2.70	8.71	1.55
BA	428	503	249	367	176	10	152	537	74
RB	207	215	294	220	253	424	323	188	303
SR	109	127	58	59	53	7	38	138	23
HF	4	4	3	1	3	1	2	6	2
ZR	132	129	94	65	84	40	61	173	48
TA	1.1	0.9	2.0	1.8	1.7	3.2	2.2	1.4	2.3
NB	11	10	13	12	11	11	11	13	7
SC	6.7	5.6	3.5	3.0	4.8	2.6	2.6	8.8	2.7
V	23	24	12	3	12	3	4	36	8
LA	27	24	17	10	17	4	10	36	8
Y	31	28	20	14	24	18	18	33	19
GA	21	26	24	20	22	22	23	18	20
TH	12.0	11.0	10.0	3.9	8.7	3.7	5.2	15.0	5.3
U	4.4	2.7	5.9	3.1	3.1	5.4	6.9	3.4	10.0
LI	72	90	88	91	73	104	103	77	62
F	590	580	830	640	660	1050	925	760	450
B	25	35	40	30	30	30	140	30	30
AS	3.2	3.5	2.1	1.7	1.6	4.7	3.5	1.6	18.0
SN	15	3	9	14	13	28	17	5	9
W	1	1	8	5	2	6	5	1	2
CU	0	0	0	0	0	0	0	0	0
PB	24	50	21	22	19	15	19	28	22
ZN	65	138	77	42	50	37	38	72	34

SAMPLE	D12-3136-2	D12-3149	D12-3151	D12-3154
UNIT	BCleMX	BCleT	BCleT	BCleT
SIO2	74.68	74.45	73.67	74.87
TIO2	0.09	0.06	0.17	0.08
AL2O3	13.83	14.31	14.21	13.77
FE2O3	1.44	1.23	1.80	1.32
MNO	0.06	0.05	0.05	0.05
MGO	0.95	0.64	0.77	0.61
CAO	0.31	0.33	0.42	0.29
NA2O	3.61	3.55	3.40	3.30
K2O	4.50	4.34	4.57	4.63
P2O5	0.20	0.26	0.26	0.14
H2O	0.60	0.40	0.70	0.70
Q	35.04	36.50	35.31	37.15
OR	26.71	25.87	27.22	27.65
AB	30.64	30.27	28.96	28.19
AN	0.23	0.00	0.38	0.53
C	2.94	3.80	3.55	3.16
EN	2.37	1.61	1.93	1.53
IL	0.13	0.11	0.11	0.11
HM	1.44	1.24	1.81	1.33
HY	2.37	1.61	1.93	1.53
RU	0.02	0.00	0.11	0.02
AP	0.47	0.61	0.61	0.33
R_Q	37.93	39.40	38.60	39.96
R_AB	33.17	32.67	31.66	30.31
R_OR	28.90	27.93	29.75	29.73
A_CNK	1.22	1.28	1.26	1.26
DIFNI	92.39	92.64	91.49	92.98
COLNI	3.95	2.95	3.85	2.97
XTLNI	1.89	1.13	1.74	1.60
BA	68	11	129	54
RB	303	406	334	222
SR	20	7	37	19
HF	2	1	2	2
ZR	52	43	73	57
TA	2.5	2.7	2.1	1.5
NB	9	12	13	8
SC	3.0	2.6	3.5	3.0
V	3	3	8	0
LA	7	3	13	7
Y	22	18	18	20
GA	24	23	21	19
TH	5.0	3.7	6.5	5.4
U	11.0	8.2	10.0	6.9
LI	84	95	103	18
F	430	850	870	250
B	35	30	35	25
AS	3.0	3.8	4.2	8.6
SN	10	20	21	12
W	2	4	6	2
CU	0	0	0	3
PB	20	27	18	16
ZN	34	99	39	31

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SAMPLE	D13-2001	D13-2003	D13-2004	D13-2023	D13-2026	D13-2027	D13-2030	D13-2031	D13-2047
UNIT	DCgd	DCgd	DCgd	Dyke	DClgMB	DClgMB	DCgd	Dyke	Dyke
SIO2	68.75	68.79	67.26	74.28	72.81	73.01	68.10	74.30	76.11
TIO2	0.59	0.51	0.83	0.18	0.19	0.15	0.59	0.04	0.12
AL203	15.19	15.42	15.10	14.17	15.07	14.70	15.22	14.43	13.19
FE203	3.81	3.32	5.06	3.37	1.46	1.43	3.87	0.54	0.89
MNO	0.08	0.07	0.08	0.02	0.03	0.03	0.08	0.02	0.03
MGO	1.61	1.59	1.74	1.02	0.85	0.77	1.69	0.66	0.69
CAO	1.43	1.60	2.37	0.09	0.38	0.37	2.14	0.33	0.57
NA20	3.38	3.14	2.99	1.41	3.14	3.41	3.31	3.31	3.00
K20	3.62	3.87	3.18	3.36	4.69	4.36	3.71	6.14	4.90
P205	0.23	0.24	0.21	0.13	0.31	0.32	0.19	0.12	0.07
H20	0.90	0.90	0.60	2.70	0.90	1.00	0.50	0.60	0.50
Q	30.81	31.03	30.97	52.68	35.68	35.83	28.38	30.21	38.00
OR	21.70	23.23	19.03	20.26	28.03	26.15	22.19	36.36	29.11
AB	28.98	26.96	25.60	12.16	26.85	29.26	28.32	28.04	25.49
AN	5.66	6.46	10.51	0.00	0.00	0.00	9.48	0.85	2.38
C	3.71	3.78	2.97	8.37	4.87	4.43	2.35	2.02	2.09
EN	4.06	4.02	4.38	2.59	2.14	1.94	4.26	1.65	1.73
IL	0.17	0.15	0.17	0.04	0.06	0.07	0.17	0.04	0.06
HM	3.86	3.37	5.12	3.43	1.48	1.45	3.91	0.54	0.89
HY	4.06	4.02	4.38	2.59	2.14	1.94	4.26	1.65	1.73
RU	0.51	0.44	0.75	0.16	0.16	0.12	0.51	0.02	0.09
AP	0.54	0.56	0.49	0.31	0.73	0.75	0.45	0.28	0.16
R_Q	37.81	38.21	40.97	61.91	39.40	39.26	35.98	31.93	41.04
R_AB	35.56	33.19	33.86	14.29	29.64	32.07	35.90	29.64	27.53
R_OR	26.63	28.60	25.18	23.80	30.95	28.67	28.13	38.43	31.43
A_CNK	1.26	1.26	1.19	2.32	1.38	1.34	1.14	1.14	1.17
DIFNI	81.48	81.21	75.61	85.10	90.56	91.24	78.88	94.60	92.60
COLNI	8.10	7.54	9.68	6.07	3.68	3.46	8.34	2.23	2.68
XTLNI	8.51	9.28	13.58	1.81	1.50	1.36	12.46	2.01	3.39
BA	537	479	670	1410	226	216	708	687	315
RB	150	158	121	127	188	194	130	128	115
SR	137	126	191	70	49	43	192	115	106
HF	5	4	7	1	2	1	6	2	2
ZR	157	135	226	48	70	60	164	48	57
TA	1.1	1.0	1.0	0.5	1.4	1.4	1.0	0.5	0.5
NB	12	10	13	4	9	10	11	4	4
SC	9.4	8.3	12.0	7.2	2.5	2.9	10.0	1.0	1.8
V	46	40	70	17	8	11	45	2	8
LA	31	24	42	12	11	9	34	10	6
Y	22	23	31	21	14	12	29	31	16
GA	21	22	20	16	18	21	21	12	15
TH	12.0	11.0	13.0	4.8	5.5	4.8	12.0	5.0	2.1
U	3.2	4.2	2.8	3.2	2.5	3.6	2.1	2.8	1.5
LI	52	68	39	18	23	22	38	9	23
F	490	610	710	340	245	310	580	120	135
B	20	20	20	105	100	50	20	20	20
AS	1.0	0.5	1.0	280.0	6.3	1.9	0.5	1.1	2.1
SN	7	6	6	6	4	14	11	7	5
W	1	1	1	1	4	5	1	1	1
CU	0	4	13	9	0	2	1	0	0
PB	17	18	18	11	19	36	19	30	27
ZN	58	61	72	23	58	190	55	23	24

SAMPLE	D13-2048	D13-2048-1	D13-2049	D13-2057	D13-2058	D13-2058-D	D13-2060-1	D13-2060-2	D13-2065
UNIT	DCmgBI-A	DCmgBI-D	DCmgBI-A	DCmgBI-C	DCgd	DCgd	DCmgBI-A	DCmgBI-D	DClaPL
SIO2	73.20	73.53	73.38	74.66	69.17	69.30	73.70	74.85	73.00
TIO2	0.18	0.05	0.22	0.11	0.50	0.52	0.14	0.04	0.19
AL203	14.38	14.75	14.18	14.02	15.35	15.23	14.47	14.35	14.46
FE203	1.88	0.91	1.99	1.24	3.41	3.45	1.56	0.96	1.89
MNO	0.08	0.19	0.08	0.05	0.07	0.06	0.08	0.13	0.07
MGO	0.95	0.55	0.94	0.75	1.49	1.70	0.84	0.55	1.14
CAO	0.41	0.05	0.38	0.24	1.05	1.17	0.40	0.20	0.66
NA2O	3.05	2.37	3.35	3.12	3.70	3.82	4.05	3.97	3.65
K2O	4.65	7.84	4.41	5.27	4.28	4.16	3.85	4.15	4.52
P2O5	0.32	0.19	0.27	0.14	0.24	0.24	0.27	0.20	0.19
H2O	1.00	0.20	0.90	0.60	0.90	0.60	0.60	0.30	0.80
Q	36.55	28.71	35.83	35.23	27.66	26.88	34.27	35.23	31.95
OR	27.75	46.08	26.30	31.30	25.50	24.69	22.92	24.68	26.80
AB	26.04	19.93	28.57	26.50	31.54	32.43	34.49	33.77	30.95
AN	0.00	0.00	0.12	0.28	3.67	4.25	0.22	0.00	2.04
C	4.36	2.34	3.88	3.09	3.32	2.90	3.58	3.34	2.82
EN	2.39	1.36	2.36	1.88	3.74	4.25	2.11	1.38	2.85
IL	0.17	0.09	0.17	0.11	0.15	0.13	0.17	0.08	0.15
HM	1.90	0.58	2.01	1.24	3.44	3.46	1.57	0.75	1.89
HY	2.39	1.36	2.36	1.88	3.74	4.25	2.11	1.38	2.85
RU	0.09	0.00	0.13	0.05	0.42	0.45	0.05	0.00	0.11
AP	0.75	0.44	0.63	0.33	0.56	0.56	0.63	0.47	0.44
R_Q	40.46	30.31	39.51	37.87	32.66	31.99	37.38	37.61	35.62
R_AB	28.82	21.04	31.50	28.49	37.23	38.61	37.62	36.05	34.51
R_OR	30.72	48.65	28.99	33.64	30.11	29.40	25.00	26.34	29.87
A_CNK	1.33	1.18	1.29	1.24	1.22	1.18	1.25	1.26	1.20
DIFNI	90.34	94.71	90.70	93.03	84.71	84.00	91.67	93.68	89.70
COLNI	4.46	2.51	4.54	3.23	7.32	7.84	3.85	2.51	4.89
XTLNI	1.67	0.95	1.77	1.59	6.29	7.23	1.69	0.97	4.03
BA	236	144	230	130	489	487	133	6	230
RB	243	261	241	186	191	173	260	235	262
SR	40	21	41	29	124	114	26	2	62
HF	2	1	3	1	4	5	2	1	2
ZR	70	27	71	47	140	135	52	25	77
TA	3.0	0.8	3.3	1.2	1.1	1.4	3.1	1.2	1.6
NB	12	3	12	6	10	11	12	7	11
SC	3.9	4.8	4.3	2.3	7.2	8.3	4.6	4.4	4.0
V	12	3	16	4	38	38	10	0	9
LA	12	4	14	5	28	31	10	2	14
Y	17	21	15	17	21	20	18	12	23
GA	19	17	18	17	20	20	18	20	20
TH	5.3	2.1	7.2	4.3	14.0	14.0	5.0	2.2	7.3
U	4.9	3.5	5.0	3.7	3.0	4.2	10.0	10.0	2.8
LI	59	8	57	30	50	56	68	26	95
F	420	78	350	135	510	530	500	105	660
B	40	20	35	20	20	25	25	20	30
AS	10.0	0.9	1.3	3.4	0.5	0.5	2.6	0.6	3.0
SN	12	6	15	9	10	14	12	12	12
W	1	2	2	2	2	2	1	1	1
CU	0	0	0	2	6	7	0	0	0
PB	42	42	22	27	19	19	16	14	15
ZN	64	32	60	45	66	63	34	24	44

SAMPLE	D13-2065-B	D13-2066	D13-2069-2	D13-2069-3	D13-2072	D13-2072-B	D13-2078	D13-2086	D13-2086-1
UNIT	Dyke	DCagSL	DClaPL	Dyke	DCagSL	DCagSL	DCqd	DClgMB	DClgMB
SIO2	74.76	72.95	74.56	75.42	70.97	71.47	66.23	73.93	73.19
TIO2	0.13	0.28	0.04	0.04	0.35	0.33	0.66	0.18	0.14
AL203	13.71	14.00	13.50	14.44	14.49	14.64	16.55	14.98	14.69
FE203	1.68	2.45	0.87	0.79	2.98	2.88	4.34	1.58	1.25
MNO	0.07	0.06	0.03	0.02	0.07	0.07	0.08	0.03	0.03
MGO	1.01	1.27	0.90	0.86	1.26	1.33	1.99	1.10	0.98
CAO	0.35	0.78	0.34	0.27	1.02	1.13	2.17	0.39	0.33
NA20	3.73	3.45	3.98	3.98	3.24	3.48	3.46	3.74	3.60
K20	4.41	4.34	4.17	5.19	4.70	4.49	4.02	4.64	4.93
P205	0.17	0.22	0.19	0.29	0.23	0.22	0.20	0.30	0.30
H20	0.80	0.70	0.50	0.30	0.70	0.80	0.40	0.60	1.10
Q	34.39	33.38	34.39	30.67	30.92	30.23	23.72	32.48	32.06
OR	26.08	25.72	25.02	30.27	27.99	26.55	23.85	27.21	29.31
AB	31.55	29.25	34.16	33.20	27.60	29.43	29.36	31.37	30.61
AN	0.62	2.43	0.45	0.00	3.58	4.16	9.48	0.00	0.00
C	2.57	2.74	2.31	2.24	2.78	2.52	3.05	3.77	3.44
EN	2.51	3.17	2.27	2.11	3.16	3.31	4.97	2.72	2.45
IL	0.15	0.13	0.07	0.04	0.15	0.15	0.17	0.06	0.06
HY	1.68	2.45	0.88	0.78	3.00	2.88	4.35	1.57	1.26
HY	2.51	3.17	2.27	2.11	3.16	3.31	4.97	2.72	2.45
RU	0.05	0.21	0.01	0.02	0.27	0.25	0.57	0.14	0.11
AP	0.39	0.51	0.45	0.66	0.54	0.51	0.47	0.69	0.70
R_Q	37.37	37.78	36.75	32.58	35.74	35.07	30.84	35.67	34.86
R_AB	34.29	33.10	36.51	35.27	31.91	34.14	38.16	34.45	33.28
R_OR	28.34	29.11	26.74	32.15	32.36	30.79	31.00	29.88	31.86
A_CNK	1.19	1.19	1.16	1.14	1.18	1.16	1.18	1.26	1.24
DIFNI	92.02	88.35	93.57	94.15	86.51	86.21	76.94	91.05	91.98
COLNI	4.34	5.75	3.22	2.93	6.31	6.34	9.50	4.35	3.77
ITLNI	2.39	4.66	2.04	1.48	5.79	6.48	12.97	1.90	1.72
BA	66	203	89	39	390	324	790	280	218
RB	263	239	168	256	228	217	148	207	207
SR	29	61	27	7	85	88	204	55	40
HF	3	3	1	2	3	3	6	2	2
ZR	66	110	24	30	121	129	201	66	57
TA	1.6	1.6	1.0	0.9	1.5	1.3	1.2	1.3	1.4
NB	9	12	5	6	12	14	12	10	10
SC	3.6	5.0	0.6	0.8	5.7	5.4	11.0	3.2	3.0
V	4	14	0	1	19	17	53	8	7
LA	9	20	3	2	25	25	42	10	9
Y	21	26	10	11	27	28	30	15	15
GA	19	20	19	19	21	18	22	20	19
TH	6.6	10.0	1.2	1.0	11.0	11.0	14.0	4.7	3.5
U	6.7	3.5	5.1	8.8	6.8	6.9	2.8	2.5	7.3
LI	70	91	28	26	94	91	54	36	19
F	400	640	245	100	600	660	490	320	335
B	30	20	25	20	20	20	20	50	40
AS	4.5	1.9	7.2	3.1	7.0	3.2	2.2	4.1	4.5
SN	12	11	9	9	11	12	2	14	12
W	2	2	3	1	3	2	2	3	4
CU	0	0	4	0	29	28	12	0	0
PB	14	17	38	24	22	24	20	20	9
ZN	32	51	20	48	57	58	62	26	22

SAMPLE	D13-2090-1	D13-2090-2	D13-2090-4	D13-2091-1	D13-2091-2	D13-2092	D13-2093-1	D13-2093-2	D13-2093-3
UNIT	DCgd	DCmgBI-A	DCmgBI-B	DCgd	Dyke	Grei	Vein(Qtz-H)	DCmgBI-B	DCmgBI-C
SIO2	63.86	73.91	71.06	65.14	72.38	75.11	88.52	74.04	73.91
TIO2	0.81	0.17	0.39	0.81	0.17	0.28	0.02	0.04	0.08
AL203	16.78	13.79	14.82	15.93	14.53	14.37	0.68	13.70	14.02
FE203	5.42	1.65	2.79	5.34	1.16	2.72	2.86	0.70	1.16
MNO	0.13	0.05	0.09	0.07	0.03	0.14	0.39	0.05	0.06
MGO	2.51	1.10	1.44	2.48	0.98	1.14	0.75	0.87	0.97
CAO	0.88	0.64	0.76	1.67	0.42	0.87	0.03	0.41	0.42
NA20	5.29	3.27	3.31	4.31	4.53	4.46	0.28	3.05	4.00
K20	3.22	4.51	4.71	2.86	4.54	0.88	0.07	5.80	4.36
P205	0.28	0.14	0.17	0.24	0.29	0.11	0.02	0.14	0.17
H20	1.20	0.60	1.00	1.70	0.70	1.20	0.50	0.50	0.80
Q	16.05	35.27	30.61	22.78	27.36	42.51	91.32	32.69	32.35
OR	19.20	26.88	27.99	17.11	27.12	5.20	0.44	34.72	26.01
AB	45.13	27.88	28.13	36.89	38.70	37.70	2.53	26.12	34.13
AN	2.55	2.28	2.67	6.79	0.19	3.59	0.02	1.13	0.98
C	3.69	2.72	3.31	3.32	2.11	4.76	0.15	2.01	2.38
EN	6.30	2.76	3.60	6.25	2.46	2.84	1.99	2.19	2.44
IL	0.28	0.11	0.19	0.15	0.06	0.30	0.04	0.08	0.13
HM	5.46	1.66	2.80	5.40	1.17	2.72	2.16	0.68	1.17
MY	6.30	2.76	3.60	6.25	2.46	2.84	1.99	2.19	2.44
RU	0.67	0.11	0.29	0.74	0.14	0.12	0.00	0.00	0.01
AP	0.65	0.33	0.40	0.56	0.68	0.25	0.05	0.33	0.40
R_Q	19.97	39.17	35.29	29.67	29.37	49.77	96.85	34.95	34.98
R_AB	56.14	30.97	32.44	48.04	41.53	44.14	2.68	27.92	36.90
R_OR	23.89	29.86	32.27	22.29	29.10	6.09	0.47	37.12	28.12
A_CNK	1.22	1.21	1.24	1.20	1.11	1.46	1.15	1.14	1.16
DIFNI	80.38	90.03	86.73	76.78	93.18	85.42	94.29	93.53	92.49
COLNI	12.05	4.53	6.60	11.80	3.70	5.85	5.49	2.99	3.74
XTLNI	6.97	4.21	5.19	11.17	1.91	5.58	1.42	2.67	2.69
BA	621	189	502	681	308	39	0	107	56
RB	177	160	201	91	172	30	11	169	213
SR	230	55	119	178	51	42	0	25	17
HF	6	2	5	8	2	3	94	2	2
ZR	228	66	137	220	67	86	12	44	41
TA	1.3	0.8	1.0	1.1	1.2	3.3	5.0	0.0	1.0
NB	14	8	10	14	9	16	38	4	8
SC	12.0	3.6	6.3	13.0	2.7	2.6	3.5	2.1	3.1
V	76	9	22	74	13	18	0	2	3
LA	31	9	30	44	8	16	2	5	5
Y	25	16	25	32	12	21	1	18	14
GA	22	16	23	23	21	26	23	20	20
TH	11.0	5.4	15.0	15.0	6.0	9.2	1.9	3.1	3.1
U	4.0	3.1	4.1	2.4	4.4	5.0	3.0	2.8	4.4
LI	62	39	53	53	15	114	11	13	37
F	620	230	470	510	230	130	70	75	200
B	50	20	30	30	30	35	25	15	20
AS	1.1	0.7	0.9	2.0	2.6	3.2	16.0	0.0	0.9
SN	12	8	8	7	16	9	10	7	13
W	1	1	3	2	2	1	30000	1	1
CU	8	0	0	1	0	0	151	9	6
PB	15	22	22	10	19	15	13	23	20
ZN	78	34	56	43	26	50	15	26	32

SAMPLE	D13-2095	D13-2095-1	D13-2095-3	D13-2095-B	D13-2118	D13-2119	D13-2120	D13-2122	D13-2122-2
UNIT	DCagBI-A	DCgd	Grei	DCagBI-C	DCgd	DCagBI-A	DCagBI-A	DCagBI-B	Grei
SIO2	74.55	63.88	56.36	73.25	64.04	73.17	72.91	74.93	78.42
TIO2	0.20	0.94	0.12	0.19	0.77	0.18	0.12	0.05	0.02
AL203	13.33	16.28	24.13	14.34	16.87	14.18	13.52	13.71	12.00
FE203	1.79	6.27	5.31	1.68	5.15	1.67	1.28	1.30	1.73
MNO	0.06	0.16	0.07	0.05	0.09	0.06	0.04	0.07	0.04
MGO	1.24	2.56	1.30	1.28	2.25	1.10	1.04	0.99	1.00
CAO	0.38	1.48	0.30	0.38	2.55	0.60	0.58	0.43	0.71
NA2O	3.43	4.07	2.62	3.38	3.79	3.29	3.79	3.88	3.53
K2O	4.78	3.20	5.69	5.07	3.10	5.00	4.62	4.31	2.39
P2O5	0.11	0.36	0.29	0.11	0.25	0.14	0.09	0.12	0.10
H2O	0.40	1.00	4.50	0.60	1.10	0.30	0.60	0.40	0.90
Q	33.98	22.16	18.06	31.84	22.26	32.55	31.26	33.86	46.03
OR	28.31	19.08	34.96	30.07	18.55	29.76	27.89	25.55	14.15
AB	29.06	34.71	23.03	28.67	32.44	28.01	32.72	32.90	29.88
AN	1.17	5.03	0.00	1.17	11.14	2.07	2.34	1.35	2.87
C	2.08	4.33	14.18	2.87	3.28	2.61	1.47	2.17	2.55
EN	3.09	6.43	3.36	3.20	5.67	2.76	2.64	2.47	2.49
IL	0.13	0.35	0.16	0.11	0.19	0.13	0.09	0.10	0.04
HM	1.79	6.32	5.52	1.68	5.21	1.68	1.31	1.24	1.68
MY	3.09	6.43	3.36	3.20	5.67	2.76	2.64	2.47	2.49
RU	0.13	0.77	0.04	0.13	0.68	0.11	0.08	0.00	0.00
AP	0.26	0.84	0.70	0.26	0.59	0.33	0.21	0.28	0.23
R_Q	37.20	29.17	23.75	35.15	30.39	36.04	34.02	36.69	51.11
R_AB	31.81	45.71	30.28	31.65	44.28	31.01	35.62	35.64	33.18
R_OR	30.99	25.12	45.97	33.20	25.32	32.95	30.36	27.68	15.71
A_CNK	1.16	1.27	2.19	1.22	1.19	1.19	1.10	1.16	1.24
DIFNI	91.35	75.95	76.04	90.59	73.25	90.31	91.87	92.31	90.06
COLNI	5.01	13.09	9.03	4.99	11.07	4.57	4.04	3.89	4.28
XTLNI	3.33	9.53	2.36	3.41	15.11	4.00	4.19	3.08	4.62
BA	384	489	209	383	756	188	113	233	189
RB	164	191	295	172	127	166	192	148	87
SR	70	174	22	81	236	46	33	37	48
HF	2	8	3	2	8	2	2	2	5
ZR	74	250	90	72	238	68	53	41	48
TA	0.8	1.2	2.4	0.5	0.8	1.4	1.0	0.5	0.5
NB	7	15	7	7	14	8	6	5	3
SC	3.4	14.0	2.8	3.5	13.0	3.9	3.2	2.1	0.5
V	11	83	25	14	57	11	8	3	0
LA	11	41	11	11	45	11	8	5	4
Y	16	34	22	17	31	19	21	14	10
GA	20	31	50	22	21	17	19	20	21
TH	5.3	13.0	8.4	5.6	15.0	5.6	5.1	2.0	0.9
U	2.5	3.5	86.7	2.7	2.6	2.5	4.6	3.1	2.6
LI	37	126	59	35	56	31	33	28	38
F	310	940	360	290	620	330	290	75	75
B	25	35	50	20	30	20	20	25	25
AS	0.6	2.1	19.0	0.7	1.2	0.5	0.8	1.4	4.0
SN	9	2	21	8	2	6	10	5	5
W	2	1	34	2	1	1	2	3	337
CU	0	6	393	0	11	0	0	16	389
PB	21	24	104	25	18	19	24	31	79
ZN	40	121	117	36	90	28	19	39	32

SAMPLE	D13-2123	D13-2124	D13-2124-2	D13-2125-2	D13-2126	D13-2127	D13-2128
UNIT	DCgd	DCagBI	DCagBI-C	DCagBI-B	DCagBI-B	DCagBI-C	DCgd
SIO2	63.85	63.37	73.84	72.72	73.25	76.37	66.51
TIO2	0.83	0.18	0.14	0.05	0.32	0.07	0.65
AL203	16.57	20.87	13.62	13.59	13.86	13.98	16.08
FE203	5.59	1.58	1.57	0.90	2.63	1.02	4.34
MNO	0.09	0.07	0.07	0.04	0.08	0.08	0.08
MGO	2.17	1.18	0.98	0.87	1.35	0.91	2.14
CAO	2.55	3.38	0.40	0.25	0.69	0.27	2.58
NA20	3.79	5.64	3.51	3.39	3.50	3.67	3.09
K20	3.32	2.48	4.60	5.11	4.50	4.75	3.59
P205	0.24	0.17	0.13	0.17	0.12	0.09	0.22
H20	0.90	1.10	0.40	0.90	0.50	0.30	0.20
Q	21.28	12.68	34.24	33.03	32.40	34.72	26.88
OR	19.84	14.83	27.52	31.13	26.54	27.76	21.39
AB	32.39	48.24	30.04	29.54	29.52	30.68	26.33
AN	11.19	15.83	1.15	0.13	2.63	0.74	11.44
C	2.71	3.20	2.48	2.50	2.25	2.49	2.97
EN	5.46	2.97	2.47	2.23	3.35	2.24	5.37
IL	0.19	0.15	0.15	0.09	0.17	0.13	0.17
HM	5.65	1.60	1.59	0.93	2.62	0.97	4.37
HY	5.46	2.97	2.47	2.23	3.35	2.24	5.37
RU	0.74	0.10	0.06	0.01	0.23	0.00	0.56
AP	0.56	0.40	0.31	0.41	0.28	0.21	0.51
R_Q	28.95	16.74	37.30	35.25	36.63	37.27	36.03
R_AB	44.06	63.68	32.72	31.53	33.37	32.93	35.30
R_OR	26.99	19.58	29.98	33.22	30.00	29.80	28.67
A_CNK	1.15	1.15	1.19	1.18	1.17	1.20	1.18
DIFNI	73.51	75.75	91.80	93.71	88.46	93.16	74.60
COLNI	11.30	4.72	4.21	3.25	6.14	3.40	9.91
XTLNI	15.02	17.91	2.88	1.70	4.98	2.31	15.20
BA	868	216	137	43	304	58	842
RB	123	135	205	136	178	114	126
SR	108	294	29	11	72	14	222
HF	7	3	2	1	4	1	6
ZR	140	101	61	26	113	35	193
TA	0.9	1.8	1.4	0.5	1.0	0.5	1.0
NB	9	10	7	3	9	5	12
SC	12.0	3.7	3.4	0.9	6.4	1.5	10.0
V	29	15	5	0	21	4	55
LA	46	19	9	3	20	6	38
Y	24	15	22	11	29	14	33
GA	18	30	19	19	19	15	19
TH	15.0	4.4	4.9	0.9	8.9	2.9	14.0
U	2.1	1.4	4.1	2.7	3.6	1.8	2.9
LI	47	41	45	20	41	25	41
F	570	400	270	65	470	75	570
B	25	30	25	20	20	25	20
AS	1.0	1.0	1.5	0.9	0.7	1.6	2.0
SN	6	10	12	7	10	6	9
W	2	5	1	1	1	1	1
CU	2	0	0	0	0	0	9
PB	23	23	27	16	24	14	16
ZN	66	42	31	23	42	20	62

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SAMPLE	A09-2132	A09-2141	A09-2141-2	A09-2146-2	A09-2152-1	A09-2152-2	A09-2153-3	A09-2154	A09-2155
UNIT	DCagSL	Grei	Grei	DClgBB	DClgBB	DClgBB	DClaPL	DClaPL	DClaPL
SIO2	67.33	83.79	77.60	74.77	74.90	74.27	73.44	75.10	73.80
TIO2	0.60	0.24	0.11	0.08	0.08	0.13	0.13	0.07	0.15
AL203	15.34	9.99	12.97	14.22	14.16	13.88	14.70	14.07	14.02
FE203	4.23	1.11	1.14	1.38	1.33	1.79	1.24	0.99	1.72
MNO	0.09	0.02	0.05	0.03	0.03	0.04	0.04	0.02	0.04
MGO	2.63	0.91	0.86	0.69	0.66	0.84	0.88	0.74	0.77
CAO	1.98	0.07	0.11	0.21	0.26	0.31	0.36	0.31	0.41
NA20	3.58	0.66	0.26	3.72	3.49	3.21	3.83	3.40	2.97
K20	3.88	2.82	3.70	4.37	4.23	4.38	4.57	4.27	4.84
P205	0.21	0.20	0.29	0.29	0.34	0.33	0.30	0.36	0.31
H20	0.57	1.33	1.85	0.71	0.82	0.70	0.53	0.49	0.67
Q	24.10	67.79	62.27	35.39	37.54	37.83	32.50	38.05	37.19
OR	22.98	16.68	22.48	25.87	25.10	26.09	27.16	25.39	28.91
AB	30.33	5.58	2.26	31.50	29.63	27.35	32.56	28.91	25.37
AN	8.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	2.15	5.85	8.76	3.37	3.85	3.88	3.47	3.87	3.93
EN	6.56	2.27	2.20	1.72	1.65	2.11	2.20	1.85	1.94
IL	0.19	0.04	0.11	0.06	0.06	0.09	0.09	0.04	0.09
HM	4.24	1.11	1.17	1.38	1.33	1.80	1.25	1.00	1.74
HY	6.56	2.27	2.20	1.72	1.65	2.11	2.20	1.85	1.94
RU	0.50	0.22	0.06	0.05	0.05	0.09	0.09	0.05	0.11
AP	0.49	0.46	0.69	0.67	0.79	0.77	0.70	0.84	0.73
R_Q	31.14	75.28	71.57	38.15	40.68	41.45	35.24	41.21	40.66
R_AB	39.18	6.20	2.60	33.96	32.11	29.97	35.31	31.31	27.74
R_OR	29.68	18.52	25.83	27.89	27.21	28.59	29.45	27.49	31.60
A_CNK	1.12	2.34	2.80	1.27	1.31	1.31	1.24	1.31	1.29
DIFNI	77.41	90.05	87.01	92.75	92.27	91.27	92.22	92.35	91.48
COLNI	10.99	3.42	3.48	3.16	3.05	4.00	3.53	2.89	3.76
XTLNI	13.06	1.59	1.54	1.21	1.16	1.48	1.54	1.30	1.36
BA	602	103	50	27	34	80	210	19	150
RB	154	280	448	754	677	691	277	521	487
SR	172	16	19	11	16	23	43	10	28
HF	6	2	0	2	2	3	2	1	3
ZR	183	87	43	44	42	76	53	32	78
TA	1.2	1.2	3.6	7.0	6.6	5.7	2.0	3.6	3.1
NB	11	9	15	27	22	22	12	15	14
SC	11.0	3.6	2.5	2.2	2.4	2.7	2.9	2.2	2.5
V	48	22	9	0	0	5	0	0	5
LA	33	14	4	5	6	12	7	3	14
Y	36	22	21	38	37	41	19	26	32
GA	18	18	19	28	24	24	17	23	22
TH	12.0	9.3	4.3	6.2	6.9	13.0	4.0	3.4	12.0
U	4.0	19.0	4.5	4.0	3.6	4.4	2.1	14.0	13.0
LI	64	48	92	324	375	419	90	182	129
F	575	1330	1770	4200	4240	3965	620	1825	1825
B	15	37	53	17	38	18	44	20	13
AS	2.3	85.3	34.0	0.9	0.9	2.5	3.3	1.5	1.3
SN	3	7	33	39	26	30	16	16	12
W	0	9	12	11	9	7	4	6	6
CU	0	0	0	0	0	0	0	0	0
PB	28	0	16	22	15	22	0	13	24
ZN	60	14	18	69	55	69	32	48	59

SAMPLE	A09-2160	A09-2160-B	A09-2161	A09-2177-1	A09-2180	A09-2181	A09-2185	A09-2186	A09-2190
UNIT	Grei	Grei	DClaPL	DClaPL	Grei	DClaPL	DCagSL	DCagSL	DClaPL(alt)
SIO2	78.25	81.63	73.97	75.87	86.94	74.12	72.03	71.05	69.74
TIO2	0.14	0.19	0.14	0.12	0.13	0.11	0.30	0.38	0.38
AL203	11.15	9.61	13.33	13.09	6.65	14.21	14.63	14.69	15.37
FE203	2.31	2.10	0.79	1.58	1.41	1.41	2.26	2.84	2.97
MNO	0.05	0.09	0.02	0.03	0.05	0.03	0.06	0.07	0.06
MGO	0.92	0.92	0.78	0.81	0.85	0.84	1.27	1.39	1.32
CAO	0.37	0.27	1.31	0.31	0.14	0.35	0.61	0.60	0.95
NA20	0.68	0.45	3.57	3.01	0.21	4.56	2.95	2.95	3.03
K20	3.21	3.24	4.70	4.27	2.36	4.33	4.75	4.68	4.89
P205	0.35	0.27	0.21	0.27	0.16	0.36	0.19	0.22	0.12
H20	1.60	1.50	1.30	0.62	0.81	0.40	0.68	0.69	0.77
Q	62.17	65.98	32.20	41.04	76.19	29.62	34.34	33.61	30.07
OR	19.47	19.39	28.13	25.41	14.10	25.50	28.37	28.00	29.27
AB	5.90	3.85	30.57	25.62	1.80	38.41	25.20	25.24	25.94
AN	0.00	0.00	5.19	0.00	0.00	0.00	1.80	1.55	3.97
C	6.72	5.42	0.49	3.53	3.79	2.01	4.02	4.25	3.69
EN	2.35	2.32	1.97	2.03	2.14	2.08	3.19	3.50	3.33
IL	0.11	0.19	0.04	0.06	0.11	0.06	0.13	0.15	0.13
HM	2.37	2.12	0.80	1.59	1.42	1.40	2.28	2.87	3.01
HY	2.35	2.32	1.97	2.03	2.14	2.08	3.19	3.50	3.33
RU	0.09	0.09	0.12	0.09	0.07	0.08	0.23	0.30	0.32
AP	0.83	0.63	0.49	0.63	0.38	0.83	0.44	0.52	0.28
R_Q	71.02	73.95	35.43	44.58	82.74	31.67	39.06	38.69	35.26
R_AB	6.74	4.32	33.63	27.83	1.95	41.07	28.67	29.07	30.42
R_OR	22.24	21.73	30.95	27.60	15.32	27.26	32.27	32.24	34.32
A_CNK	2.12	2.03	1.00	1.29	2.11	1.11	1.32	1.33	1.28
DIFNI	87.53	89.22	90.90	92.07	92.09	93.53	87.90	86.85	85.28
COLNI	4.83	4.64	2.81	3.68	3.67	3.55	5.60	6.53	6.46
ITLNI	1.65	1.62	6.56	1.42	1.50	1.46	4.04	4.01	6.31
BA	85	87	591	44	27	29	369	415	467
RB	426	891	246	499	358	572	235	262	208
SR	12	8	63	10	0	15	86	95	97
HF	2	2	3	3	0	1	4	4	4
ZR	55	73	73	69	47	53	107	124	135
TA	2.3	2.0	1.6	3.6	5.4	5.1	1.6	1.3	0.8
NB	10	13	7	17	19	21	8	10	10
SC	2.7	3.9	2.1	2.1	4.3	3.7	5.2	6.6	7.2
V	5	6	0	0	0	3	21	32	28
LA	9	10	40	9	5	6	18	21	25
Y	23	42	32	32	28	20	26	29	33
GA	24	17	15	21	14	25	18	17	17
TH	5.2	8.2	8.4	11.0	6.7	6.3	10.0	12.0	12.0
U	9.0	6.1	6.2	28.6	23.7	24.1	5.4	5.6	3.4
LI	340	852	12	96	582	342	47	81	53
F	6000	8200	7680	2535	4448	3200	505	635	645
B	23	21	16	14	16	25	22	19	21
AS	1100.0	50.0	5.3	1.6	50.3	19.0	2.7	1.4	3.9
SN	339	1394	5	22	121	34	10	22	7
W	200	28	3	5	1090	14	2	3	1
CU	3325	569	8	0	5	0	0	0	0
PB	208	792	42	15	62	27	26	13	30
ZN	1884	344	12	60	65	59	51	80	51

SAMPLE	A09-2191	A09-2192	A09-2193	A09-2196	A09-2205-B	A09-2206	A09-2207	A09-2208	A09-2208-2
UNIT	Grei	DClaPL	DClaPL	DClaPL	DCaySL	DClaSP	DClaNR	DCaySi	Grei
SIO2	65.63	74.64	74.56	74.09	71.78	73.84	74.46	71.96	87.85
TIO2	0.27	0.04	0.07	0.18	0.31	0.19	0.11	0.25	0.20
AL203	16.01	13.98	14.14	14.06	14.56	13.88	13.82	14.70	6.83
FE203	3.04	0.93	1.13	1.65	2.40	1.70	1.47	1.78	1.45
MNO	0.14	0.05	0.07	0.03	0.06	0.03	0.03	0.03	0.05
MGO	1.01	0.80	0.76	0.82	1.51	0.92	0.76	1.31	1.08
CAO	1.04	0.25	0.35	0.46	0.67	0.70	0.38	0.48	0.06
NA20	3.84	3.41	3.35	3.43	2.98	2.98	3.45	3.55	0.36
K20	6.55	4.36	4.60	4.81	4.82	4.73	4.32	4.82	2.33
P205	0.87	0.24	0.24	0.31	0.12	0.27	0.33	0.29	0.10
H20	1.00	0.49	0.58	0.54	0.80	0.40	0.70	0.90	0.70
Q	16.95	37.37	36.51	34.44	32.89	36.56	37.01	30.94	74.93
OR	39.33	26.11	27.41	28.50	28.74	28.19	25.76	28.75	13.73
AB	32.98	29.21	28.55	29.07	25.41	25.41	29.43	30.29	3.03
AN	0.00	0.00	0.17	0.25	2.56	1.72	0.00	0.49	0.00
C	2.64	3.69	3.61	3.12	3.53	3.25	3.49	3.49	3.70
EN	2.55	2.02	1.91	2.05	3.79	2.31	1.91	3.29	2.68
IL	0.30	0.08	0.13	0.06	0.13	0.06	0.06	0.06	0.11
HM	3.09	0.91	1.12	1.65	2.42	1.71	1.48	1.79	1.44
HY	2.55	2.02	1.91	2.05	3.79	2.31	1.91	3.29	2.68
RU	0.11	0.00	0.00	0.15	0.24	0.16	0.08	0.22	0.14
AP	2.05	0.56	0.56	0.72	0.28	0.63	0.77	0.68	0.23
R_Q	18.99	40.32	39.49	37.43	37.79	40.55	40.14	34.39	81.72
R_AB	36.95	31.51	30.88	31.59	29.20	28.18	31.92	33.66	3.31
R_OR	44.06	28.17	29.64	30.98	33.01	31.27	27.94	31.95	14.97
A_CNK	1.05	1.30	1.27	1.20	1.28	1.23	1.25	1.23	2.12
DIFNI	89.26	92.69	92.47	92.00	87.04	90.15	92.20	89.98	91.70
COLNI	5.94	3.05	3.19	3.76	6.34	4.09	3.45	5.15	4.23
XTLNI	1.79	1.41	1.50	1.69	5.21	3.34	1.34	2.79	1.88
BA	537	32	66	139	526	271	52	254	91
RB	398	321	314	416	190	294	676	331	389
SR	60	9	18	31	106	52	17	56	8
HF	2	1	2	3	4	3	1	1	2
ZR	104	29	36	81	98	94	58	99	75
TA	1.1	2.7	2.9	3.1	0.8	2.0	4.6	1.6	1.6
NB	9	7	8	14	7	14	24	15	18
SC	5.3	2.7	3.2	2.8	6.4	2.3	2.2	2.9	3.0
V	22	0	0	0	26	11	3	16	13
LA	16	2	5	14	21	18	7	9	21
Y	23	22	21	29	35	20	26	17	12
GA	22	17	19	23	15	22	25	21	18
TH	8.7	2.7	3.2	11.0	9.3	12.0	8.1	15.0	16.0
U	6.1	10.0	3.1	15.0	2.2	2.9	24.8	5.4	5.1
LI	77	16	46	73	41	97	431	182	580
F	1050	385	495	2350	735	1250	4500	2150	6400
B	15	13	16	15	13	25	30	30	65
AS	3000.0	65.5	4.5	2.7	1.3	4.7	1.3	352.0	11.0
SN	29	7	11	21	5	12	41	20	33
W	5	4	2	6	0	2	11	26	10
CU	0	0	0	0	5	0	11	0	0
PB	26	11	17	15	10	21	23	20	6
ZN	50	13	30	63	40	53	114	78	33

SAMPLE	A09-2208-2-B	A09-2210	A09-2211-1	A09-2211-2	A09-2212	A09-2222	A09-2223	A09-2224	A09-2228
UNIT	Grei	DCagS	DClaPL	Grei	DClaPL	DClaPL	Grei	DClaPL	DClaBR
SIO2	77.69	72.34	74.81	74.54	73.35	73.10	72.51	73.51	71.44
TIO2	0.25	0.34	0.06	0.05	0.15	0.17	0.15	0.14	0.31
AL203	11.69	14.22	13.91	14.99	14.36	14.97	16.08	14.67	14.43
FE203	1.56	2.52	1.24	1.11	1.73	1.30	1.39	1.34	2.65
MNO	0.04	0.05	0.07	0.06	0.06	0.03	0.02	0.04	0.06
MGO	1.10	1.14	0.77	0.67	0.97	0.89	0.90	2.16	1.31
CAO	0.46	0.94	0.24	0.38	0.39	0.37	0.56	0.34	0.39
NA20	2.04	2.92	3.62	3.82	3.32	3.38	0.46	3.49	3.26
K20	3.93	4.60	4.22	2.84	4.63	4.80	5.76	4.67	4.68
P205	0.32	0.26	0.22	0.36	0.19	0.32	0.52	0.30	0.23
H20	1.10	0.30	0.77	1.04	0.63	0.80	2.20	0.40	1.00
Q	49.50	34.99	36.73	40.89	34.85	33.93	47.14	31.87	32.82
OR	23.46	27.39	25.16	16.98	27.62	28.57	34.60	27.43	28.03
AB	17.42	24.87	30.87	32.67	28.33	28.78	3.95	29.32	27.93
AN	0.19	2.98	0.00	0.00	0.70	0.00	0.00	0.00	0.43
C	4.04	3.37	3.41	5.69	3.66	4.24	9.22	3.84	3.89
EN	2.76	2.86	1.93	1.69	2.44	2.23	2.28	5.34	3.30
IL	0.09	0.11	0.11	0.10	0.13	0.06	0.04	0.08	0.13
HM	1.57	2.54	1.21	1.09	1.74	1.31	1.41	1.33	2.68
HY	2.76	2.86	1.93	1.69	2.44	2.23	2.28	5.34	3.30
RU	0.21	0.29	0.00	0.00	0.08	0.14	0.13	0.09	0.25
AP	0.75	0.61	0.51	0.84	0.44	0.75	1.22	0.69	0.54
R_Q	54.77	40.10	39.60	45.16	38.38	37.18	55.01	35.97	36.97
R_AB	19.27	28.51	33.28	36.09	31.20	31.52	4.61	33.08	31.46
R_OR	25.96	31.39	27.12	18.76	30.42	31.30	40.37	30.95	31.57
A_CNK	1.38	1.24	1.27	1.49	1.28	1.31	2.01	1.29	1.30
DIFNI	90.38	87.25	92.76	90.54	90.80	91.28	85.69	88.62	88.78
COLNI	4.43	5.50	3.31	2.92	4.31	3.60	3.73	6.76	6.12
ITLNI	2.13	4.98	1.35	1.18	2.40	1.56	1.60	3.74	2.75
BA	199	288	34	19	155	292	63	212	410
RB	514	272	390	588	288	356	725	321	216
SR	37	65	8	33	34	37	15	31	64
HF	1	5	2	2	3	1	1	1	4
ZR	102	146	41	22	63	66	71	59	112
TA	2.3	1.6	3.2	10.0	1.8	1.6	2.6	2.6	1.9
NB	17	15	10	31	8	9	12	14	11
SC	2.8	4.0	3.5	10.0	3.6	1.9	4.0	2.9	5.0
V	12	20	0	0	0	5	7	2	22
LA	11	25	4	0	10	11	15	10	17
Y	22	27	29	30	28	17	28	17	23
GA	24	20	18	32	18	21	25	20	17
TH	13.0	17.0	4.8	2.1	6.7	8.7	7.3	6.6	9.1
U	2.0	3.0	7.6	12.0	4.6	5.1	9.4	4.4	4.3
LI	618	128	88	55	68	221	113	156	68
F	7200	1175	855	935	495	1400	2150	1150	450
B	35	20	19	40	20	35	310	25	25
AS	73.1	0.8	7.0	15.0	1.3	4.9	173.0	1.6	1.2
SN	30	10	23	48	12	20	29	14	10
W	20	1	7	15	3	3	33	2	2
CU	1	0	0	17	0	0	0	0	0
PB	11	20	15	35	15	10	22	17	18
ZN	34	56	36	42	28	49	18	46	32

SAMPLE	A09-2229	A09-2231	A09-2234	A09-2235	A09-2240-A	A09-2242	A09-2243	A09-2350	A09-2351
UNIT	Grei	DClaMR	DCagSL	DCagSL	DCagSL	DCagSL	DCagSL	DClaPL	DClaMR
SIO2	78.51	72.09	70.45	69.19	69.52	69.54	70.46	74.98	73.65
TIO2	0.16	0.21	0.32	0.49	0.45	0.46	0.39	0.06	0.21
AL203	12.24	14.95	14.91	15.00	15.06	14.91	14.87	14.24	14.02
FE203	1.32	1.60	2.45	3.50	3.34	3.33	2.88	1.32	1.92
MNO	0.03	0.04	0.07	0.08	0.08	0.07	0.07	0.04	0.05
MGO	1.03	1.04	1.36	1.54	1.48	1.50	1.23	0.81	1.07
CAO	0.12	0.52	0.95	1.18	1.21	1.42	1.08	0.28	0.75
NA20	0.70	3.32	3.30	3.22	3.01	3.39	3.58	3.53	3.13
K20	5.80	4.76	4.80	4.20	4.77	4.42	4.54	4.38	4.75
P205	0.16	0.30	0.19	0.19	0.17	0.16	0.19	0.24	0.18
H20	1.00	0.60	1.20	0.62	0.40	0.57	0.66	0.30	0.40
Q	50.60	33.11	28.46	30.51	29.69	28.29	28.84	36.49	34.65
OR	34.25	28.49	28.68	25.20	28.47	26.35	27.05	25.93	28.17
AB	5.91	28.42	29.91	27.63	25.70	28.91	30.51	29.89	26.55
AN	0.00	0.62	3.50	4.68	4.93	6.05	4.14	0.00	2.55
C	4.80	4.15	2.71	3.51	3.18	2.37	2.57	3.69	2.80
EN	2.56	2.62	3.42	3.89	3.72	3.77	3.08	2.02	2.67
IL	0.06	0.09	0.15	0.17	0.17	0.15	0.15	0.09	0.11
HM	1.32	1.62	2.47	3.55	3.37	3.36	2.90	1.32	1.93
HY	2.56	2.62	3.42	3.89	3.72	3.77	3.08	2.02	2.67
RU	0.13	0.17	0.24	0.41	0.36	0.38	0.31	0.01	0.15
AP	0.37	0.70	0.45	0.45	0.40	0.37	0.44	0.56	0.42
R_Q	55.75	36.78	32.70	36.61	35.40	33.86	33.38	39.53	38.77
R_AB	6.51	31.57	34.36	33.16	30.65	34.60	35.31	32.38	29.71
R_OR	37.74	31.65	32.94	30.23	33.95	31.54	31.31	28.09	31.52
A_CNK	1.60	1.29	1.18	1.25	1.22	1.15	1.16	1.29	1.20
DIFNI	90.76	90.03	87.05	83.34	83.86	83.56	86.39	92.31	89.37
COLNI	3.94	4.33	6.05	7.61	7.26	7.27	6.14	3.43	4.70
XTLNI	1.79	2.46	5.90	7.40	7.54	8.68	6.31	1.41	4.42
BA	182	311	463	547	479	519	470	15	224
RB	418	236	195	187	192	184	208	290	260
SR	16	51	109	145	117	126	96	0	53
HF	1	3	4	6	5	6	4	0	3
ZR	69	77	114	155	139	150	126	26	84
TA	1.1	1.1	1.5	1.1	1.0	0.8	1.3	1.7	1.4
NB	7	12	10	10	10	9	11	8	10
SC	3.5	2.9	4.4	9.2	8.5	8.3	6.0	2.3	4.2
V	8	11	30	46	31	31	27	0	11
LA	11	14	20	33	29	31	24	2	18
Y	23	14	24	32	37	33	27	20	27
GA	19	20	20	18	18	18	15	18	16
TH	7.7	9.0	8.9	14.0	12.0	13.0	12.0	3.1	11.0
U	10.0	2.9	4.5	4.7	3.1	3.2	6.1	13.0	3.5
LI	27	99	63	93	89	106	75	70	86
F	890	510	450	515	510	505	550	605	615
B	75	35	30	28	14	16	15	13	0
AS	1510.0	1.8	2.1	1.9	1.0	1.8	1.6	2.3	1.9
SN	13	16	8	6	6	7	6	14	6
W	5	3	1	0	0	1	0	41	0
CU	0	0	0	0	0	0	0	5	0
PB	18	19	20	21	21	25	24	29	25
ZN	62	47	75	60	68	69	59	32	40

SAMPLE	A09-2352	A09-2353	A09-2354	A09-2355	A09-2356	A09-2357	A09-2358	A09-2359	A09-2360
UNIT	DClaPL	DClaPL	DClaPL	Grei	DCaqSL	DCaqSL	Grei	Grei	DClaMR
SIO2	74.21	75.22	73.18	66.81	73.07	72.00	74.69	74.68	72.30
TIO2	0.10	0.12	0.19	0.12	0.21	0.31	0.30	0.08	0.24
AL203	14.08	13.69	14.17	18.32	14.45	14.23	12.01	14.09	14.66
FE203	1.03	1.55	1.81	0.82	1.76	2.34	4.92	1.09	2.05
MNO	0.03	0.04	0.05	0.02	0.04	0.06	0.04	0.05	0.05
MGO	0.83	0.83	0.97	0.73	1.06	1.17	1.01	0.83	1.14
CAO	0.43	0.31	0.68	0.29	0.41	0.74	0.00	0.33	1.21
NA20	4.75	3.82	3.61	7.96	3.36	3.98	0.41	3.89	3.93
K20	4.46	4.49	4.58	3.61	4.87	4.38	3.57	4.04	3.92
P205	0.36	0.24	0.21	0.29	0.24	0.29	0.04	0.33	0.22
H20	0.60	0.20	0.40	0.80	0.50	0.90	3.90	0.60	0.40
Q	28.17	34.45	32.51	5.65	33.27	29.71	58.86	35.51	30.84
OR	26.30	26.47	27.24	21.56	28.96	26.04	21.76	24.01	23.25
AB	40.06	32.22	30.71	67.99	28.58	33.84	3.57	33.07	33.34
AN	0.00	0.00	2.01	0.00	0.47	1.78	0.00	0.00	4.58
C	1.43	2.53	2.55	1.33	3.50	2.30	7.69	3.33	2.28
EN	2.06	2.06	2.43	1.84	2.65	2.93	2.59	2.08	2.85
IL	0.06	0.09	0.11	0.04	0.09	0.13	0.09	0.11	0.11
HM	1.03	1.55	1.82	0.83	1.77	2.35	5.07	1.10	2.06
HY	2.06	2.06	2.43	1.84	2.65	2.93	2.59	2.08	2.85
RU	0.07	0.07	0.13	0.10	0.17	0.24	0.26	0.02	0.18
AP	0.83	0.55	0.49	0.68	0.56	0.68	0.10	0.77	0.51
R_Q	29.80	36.99	35.93	5.93	36.63	33.16	69.91	38.35	35.27
R_AB	42.38	34.59	33.95	71.42	31.47	37.78	4.25	35.72	38.14
R_OR	27.82	28.42	30.11	22.65	31.89	29.06	25.84	25.93	26.59
A_CNK	1.05	1.17	1.17	1.05	1.25	1.13	2.65	1.24	1.14
DIFNI	94.52	93.15	90.46	95.19	90.80	89.59	84.20	92.60	87.44
COLNI	3.15	3.69	4.36	2.71	4.51	5.41	7.75	3.28	5.01
ITLNI	1.44	1.44	3.71	1.29	2.33	3.83	1.82	1.46	6.57
BA	155	72	158	126	273	324	167	19	412
RB	296	319	273	223	259	247	438	460	280
SR	30	23	48	35	53	56	6	9	135
HF	1	3	3	2	3	5	3	1	5
ZR	50	57	81	60	101	116	112	32	113
TA	2.2	2.5	1.6	2.5	2.2	2.0	1.6	3.7	2.0
NB	9	10	10	9	13	13	12	12	11
SC	3.1	2.9	3.7	3.5	3.7	5.6	5.6	3.1	3.8
V	0	0	8	0	7	24	26	0	13
LA	6	10	15	9	21	24	19	3	26
Y	22	26	26	21	23	25	36	22	26
GA	18	20	18	25	18	20	21	20	16
TH	4.6	7.1	8.2	7.0	15.0	15.0	5.7	2.6	12.0
U	6.9	7.4	7.8	11.0	5.1	7.6	4.1	20.7	3.2
LI	52	90	76	10	65	90	54	146	162
F	580	755	760	250	420	760	1845	1385	1165
B	0	0	0	0	19	29	32	23	13
AS	3.9	1.6	2.5	100.0	3.1	3.8	151.0	1.9	0.9
SN	17	13	10	20	6	16	11	26	11
W	4	5	2	3	4	4	12	11	5
CU	0	0	0	0	0	5	0	0	0
PB	0	24	22	24	14	13	0	20	12
ZN	17	42	44	21	34	53	15	81	53

SAMPLE	A09-2361	A09-2362	A09-2363	A09-2364	A09-2365	A09-2366	A09-2368	A09-2369	A09-2370
UNIT	DClaNR	Grei	Grei	Grei	DClaPL	DClaPL	DCagSL	DClaNR	DCagSL(alt)
SIO2	74.79	77.00	74.39	78.48	74.65	75.42	69.55	74.52	73.72
TIO2	0.14	0.12	0.05	0.04	0.14	0.06	0.52	0.16	0.17
AL203	13.99	13.56	14.92	14.42	13.81	13.71	14.85	13.99	14.04
FE203	1.38	1.44	0.80	0.95	1.67	0.73	3.58	1.68	1.71
MNO	0.04	0.05	0.03	0.04	0.04	0.03	0.10	0.04	0.04
MGO	0.82	0.84	0.81	0.81	0.87	0.80	1.89	0.92	0.93
CAO	0.37	0.20	0.32	0.35	0.35	0.30	1.30	0.29	0.42
NA20	3.21	0.35	4.84	0.84	3.32	2.91	3.62	3.91	3.37
K20	4.65	4.51	3.67	4.14	4.43	5.30	4.04	4.27	4.47
P205	0.23	0.21	0.42	0.32	0.22	0.15	0.21	0.27	0.28
H20	0.40	2.10	0.10	1.20	0.40	0.48	0.54	0.74	0.50
Q	37.08	57.37	30.82	56.26	37.13	37.00	28.10	34.01	35.80
OR	27.61	27.12	21.60	24.38	26.34	31.54	23.98	25.23	26.67
AB	27.26	3.01	40.75	7.07	28.23	24.77	30.73	33.04	28.76
AN	0.33	0.00	0.00	0.00	0.30	0.51	5.09	0.00	0.25
C	3.56	8.23	2.97	8.51	3.46	3.01	2.67	2.93	3.59
EN	2.05	2.13	2.01	2.01	2.18	2.00	4.72	2.29	2.34
IL	0.09	0.11	0.06	0.08	0.09	0.06	0.21	0.09	0.09
MH	1.39	1.46	0.80	0.94	1.68	0.73	3.59	1.68	1.72
HY	2.05	2.13	2.01	2.01	2.18	2.00	4.72	2.29	2.34
RU	0.10	0.06	0.02	0.00	0.10	0.03	0.41	0.11	0.13
AP	0.54	0.50	0.97	0.74	0.51	0.35	0.49	0.63	0.66
R_Q	40.33	65.57	33.08	64.15	40.49	39.65	33.94	36.85	39.25
R_AB	29.65	3.44	43.74	8.07	30.79	26.35	37.11	35.81	31.52
R_OR	30.03	30.99	23.19	27.79	28.72	33.80	28.95	27.34	29.23
A_CNK	1.27	2.33	1.19	2.22	1.27	1.24	1.17	1.21	1.26
DIFNI	91.95	87.51	93.18	87.71	91.69	93.30	82.81	92.28	91.23
COLNI	3.52	3.70	2.87	3.03	3.94	2.80	8.53	4.05	4.15
XTLNI	1.77	1.49	1.41	1.41	1.82	1.91	8.40	1.60	1.89
BA	140	83	17	17	78	100	548	151	155
RB	348	433	486	706	296	235	172	240	254
SR	31	7	0	8	26	26	148	37	42
HF	2	2	2	0	3	0	6	3	3
ZR	52	56	28	21	67	24	160	69	77
TA	2.1	2.5	6.2	8.3	1.7	1.0	1.5	2.0	2.3
NB	10	9	23	23	10	6	10	10	10
SC	3.1	4.4	4.9	4.0	3.2	1.9	9.5	3.5	3.8
V	0	0	0	0	0	6	41	6	5
LA	11	8	0	0	10	4	33	7	11
Y	22	32	25	28	27	22	31	18	20
GA	18	19	32	30	19	17	18	18	19
TH	7.3	6.7	2.6	1.2	7.2	2.2	13.0	6.1	6.6
U	8.3	15.0	10.0	16.0	5.9	6.0	2.6	8.4	10.0
LI	109	54	55	144	73	6	57	21	19
F	770	895	810	2215	645	155	630	420	430
B	16	109	338	104	18	20	19	41	20
AS	1.5	823.0	3.2	232.0	2.3	15.0	2.6	1.6	1.2
SN	10	23	21	27	13	9	0	13	9
W	3	7	7	8	2	2	1	3	2
CU	0	5	0	0	0	10	14	0	0
PB	13	0	17	0	12	25	16	0	12
ZN	39	16	22	37	33	41	95	19	38

SAMPLE	A09-2371	A09-2372	A09-2373	A09-2374	A09-2375	A09-2376	A09-2377	A09-2378	A09-2379
UNIT	DCaqSL	DClaMR	DClaPL	DClaPL	DCaqS	DCaqS	DClaMR	DClaSP	Ervi
SIO2	72.42	73.01	75.24	74.78	72.42	72.17	74.09	72.68	87.00
TIO2	0.31	0.30	0.07	0.06	0.31	0.28	0.16	0.34	0.27
AL2O3	14.21	14.13	14.00	14.27	14.23	14.47	13.79	13.76	6.10
FE2O3	2.26	2.31	1.16	1.22	2.38	2.14	1.87	2.56	1.83
MNO	0.06	0.05	0.04	0.04	0.05	0.05	0.07	0.05	0.05
MGO	1.13	1.03	0.80	0.72	1.12	1.25	0.92	1.13	0.75
CAO	0.35	0.57	0.30	0.30	0.71	0.67	0.50	0.91	0.45
NA2O	3.49	3.43	3.80	3.93	3.75	4.21	3.65	3.38	0.78
K2O	4.97	4.68	4.48	4.06	4.66	4.69	4.90	4.70	1.68
P2O5	0.13	0.27	0.28	0.32	0.27	0.27	0.17	0.24	0.45
H2O	0.78	0.57	0.51	0.60	0.40	0.56	0.39	0.21	1.10
Q	31.22	33.21	34.70	35.36	30.36	27.13	32.09	32.14	75.28
OR	29.60	27.74	26.44	24.06	27.59	27.69	28.95	27.87	9.99
AB	29.73	29.08	32.07	33.31	31.76	35.55	30.84	28.67	6.63
AN	0.89	1.06	0.00	0.00	1.76	1.55	1.37	2.95	0.00
C	2.78	3.04	2.89	3.41	2.37	1.89	1.97	2.03	3.01
EN	2.83	2.57	1.99	1.80	2.79	3.11	2.29	2.82	1.88
IL	0.13	0.11	0.09	0.09	0.11	0.11	0.15	0.11	0.11
HM	2.28	2.32	1.16	1.22	2.38	2.14	1.87	2.57	1.84
HY	2.83	2.57	1.99	1.80	2.79	3.11	2.29	2.82	1.88
RU	0.24	0.24	0.02	0.01	0.25	0.22	0.08	0.28	0.21
AP	0.30	0.63	0.65	0.74	0.63	0.63	0.39	0.56	1.05
R_Q	34.48	36.88	37.23	38.13	33.84	30.02	34.92	36.24	81.92
R_AB	32.83	32.30	34.41	35.92	35.40	39.34	33.57	32.33	7.22
R_OR	32.69	30.81	28.36	25.95	30.76	30.64	31.51	31.43	10.87
A_CNK	1.21	1.20	1.20	1.25	1.14	1.09	1.13	1.12	1.56
DIFNI	90.54	90.04	93.21	92.72	89.71	90.36	91.88	88.68	91.90
COLNI	5.24	4.99	3.23	3.10	5.28	5.35	4.31	5.49	3.82
XTLNI	2.88	2.86	1.39	1.26	3.71	3.73	2.97	4.93	1.32
BA	375	275	14	12	240	291	161	292	37
RB	179	289	409	547	299	347	308	296	261
SR	112	52	9	0	56	56	37	63	26
HF	3	4	1	1	4	4	3	5	4
ZR	106	118	26	34	116	127	77	134	102
TA	1.1	2.0	2.8	3.7	2.1	2.3	1.8	1.9	4.6
NB	7	13	11	13	13	13	10	12	38
SC	5.6	5.0	2.2	2.4	4.9	4.2	3.8	5.1	2.6
V	27	13	0	0	19	13	9	19	7
LA	14	26	2	3	25	25	13	30	15
Y	22	30	24	32	28	29	38	33	22
GA	13	17	22	22	21	20	17	18	14
TH	9.2	18.0	3.0	3.7	17.0	20.6	9.0	20.6	11.0
U	2.7	5.1	16.0	4.9	3.3	4.1	3.3	4.1	6.1
LI	10	61	18	59	41	71	47	39	103
F	200	1165	675	1845	1145	1705	875	1220	1820
B	21	17	16	15	18	15	17	18	17
AS	1.7	2.4	8.4	2.0	1.6	1.5	12.0	2.1	5450.0
SN	3	5	18	35	5	8	16	7	35
W	1	2	5	6	1	3	2	0	29
CU	0	0	0	0	0	0	0	0	217
PB	15	0	20	16	19	24	23	14	26
ZN	37	55	51	42	58	60	44	55	36

SAMPLE	A09-2380	A09-2381	A09-2382	A09-2383	A09-2384	A09-2386	A09-2387	A09-2388	A09-2389
UNIT	DClaPL	DCogSL	DClaMR	DClaPL	DClaPL	DClaMR	Grei	DClaSP	DClaMR
SIO2	75.37	69.84	74.14	74.38	74.32	74.93	79.00	73.44	75.25
TIO2	0.04	0.46	0.22	0.11	0.03	0.14	0.09	0.22	0.14
AL203	14.26	14.60	13.65	13.71	14.52	13.38	4.37	14.20	13.47
FE203	0.60	3.30	2.11	1.57	0.83	1.83	7.93	1.76	1.20
MNO	0.03	0.07	0.06	0.09	0.04	0.06	0.03	0.03	0.04
MGO	0.67	1.56	1.02	0.96	0.75	0.89	1.09	0.96	0.86
CAO	0.24	1.28	0.67	0.38	0.24	0.52	0.02	0.83	0.46
NA20	3.76	3.68	3.04	3.13	4.28	3.16	0.98	2.87	3.25
K20	4.29	4.30	4.62	4.46	4.37	4.59	1.65	5.10	4.82
P205	0.17	0.18	0.17	0.18	0.21	0.15	0.05	0.23	0.12
H20	0.59	0.43	0.20	0.70	0.33	0.10	3.60	0.24	0.48
Q	36.24	27.60	36.39	37.74	31.68	37.08	68.61	34.77	36.09
OR	25.52	25.62	27.41	26.66	25.95	27.25	10.25	30.28	28.62
AB	31.99	31.36	25.80	26.76	36.35	26.83	8.70	24.37	27.60
AN	0.08	5.21	2.22	0.71	0.00	1.60	0.00	2.62	1.50
C	3.42	2.01	2.84	3.51	2.76	2.63	1.02	3.01	2.36
EN	1.68	3.91	2.55	2.42	1.87	2.22	2.85	2.40	2.15
IL	0.06	0.15	0.13	0.19	0.06	0.13	0.07	0.06	0.09
HM	0.60	3.32	2.12	1.59	0.80	1.84	8.32	1.77	1.20
HY	1.68	3.91	2.55	2.42	1.87	2.22	2.85	2.40	2.15
RU	0.01	0.38	0.15	0.01	0.00	0.07	0.06	0.19	0.10
AP	0.40	0.42	0.40	0.42	0.49	0.35	0.12	0.54	0.28
R_Q	38.65	32.63	40.62	41.40	33.71	40.68	78.36	38.89	39.10
R_AB	34.13	37.08	28.79	29.35	38.68	29.43	9.94	27.25	29.90
R_OR	27.22	30.29	30.59	29.24	27.61	29.89	11.70	33.86	31.00
A_CNK	1.27	1.12	1.22	1.29	1.19	1.20	1.27	1.21	1.18
DIFNI	93.75	84.59	89.60	91.15	93.98	91.15	87.56	89.42	92.32
COLNI	2.35	7.39	4.79	4.20	2.78	4.19	11.24	4.23	3.44
XTLNI	1.25	7.95	4.00	2.41	1.31	3.16	2.00	4.30	3.01
BA	23	488	136	72	17	101	351	392	249
RB	234	196	278	332	401	304	91	245	194
SR	8	128	45	22	6	32	11	70	54
HF	2	5	3	3	2	3	0	4	2
ZR	35	143	91	55	35	73	27	112	60
TA	2.7	1.2	1.7	2.6	2.7	2.2	0.0	1.1	1.3
NB	10	11	10	8	10	10	0	11	6
SC	3.9	7.8	4.5	3.3	3.3	3.6	3.1	2.2	3.0
V	0	36	11	0	0	5	14	7	7
LA	2	28	16	7	2	11	41	27	8
Y	20	33	37	31	25	35	39	27	21
GA	16	17	18	17	21	15	13	20	15
TH	3.8	13.0	11.0	6.3	4.1	9.0	1.5	18.0	4.8
U	15.0	3.4	3.9	5.3	22.1	5.2	1.0	3.0	5.4
LI	23	99	126	124	67	192	45	55	47
F	350	640	1020	815	600	1495	350	620	150
B	20	20	14	14	16	11	38	0	15
AS	17.0	1.8	5.9	11.0	22.0	1.6	9000.0	1.7	1.6
SN	21	5	10	21	25	9	26	9	5
W	35	2	1	4	6	2	0	1	2
CU	37	12	0	5	0	0	1420	0	5
PB	22	18	16	16	25	23	83	18	19
ZN	20	61	51	49	58	59	4177	40	36

SAMPLE	A09-2390	A09-2391	A09-2392	A09-2395	A09-2396	A09-2397	A09-2398	A09-2399	A09-2400
UNIT	DClaPL	DCagSL	DClaPL	Grei	Grei	Grei	DClaMR	DClaPL	Grei
SIO2	74.84	70.18	75.24	77.11	76.60	81.50	74.25	74.31	76.49
TIO2	0.05	0.41	0.05	0.05	0.36	0.02	0.20	0.10	0.05
AL203	14.42	15.06	14.35	14.15	13.63	3.01	13.32	13.96	12.75
FE203	0.70	3.02	0.54	0.73	1.50	7.14	1.85	1.42	2.83
MNO	0.05	0.07	0.05	0.06	0.05	0.05	0.04	0.03	0.04
MGO	0.68	1.35	0.76	0.82	1.19	0.87	0.90	0.74	0.76
CAO	0.31	1.33	0.32	0.18	0.58	0.00	0.51	0.33	0.13
NA20	3.75	3.09	3.75	1.73	0.64	0.57	3.44	2.95	1.42
K20	3.92	4.46	3.94	5.05	4.02	0.73	4.39	4.14	3.22
P205	0.29	0.15	0.26	0.19	0.49	0.05	0.29	0.34	0.20
H20	0.54	0.60	0.41	1.20	1.80	4.50	0.50	0.70	1.80
Q	37.34	30.95	37.47	46.41	36.19	78.82	36.10	40.94	55.86
OR	23.40	26.61	23.47	29.83	23.99	4.59	26.18	24.83	19.43
AB	32.02	26.38	31.96	14.62	5.46	5.13	29.34	25.30	12.26
AN	0.00	5.67	0.00	0.00	0.00	0.00	0.64	0.00	0.00
C	4.04	3.11	3.94	5.82	8.29	1.36	2.70	4.69	7.07
EN	1.71	3.39	1.91	2.04	2.99	2.30	2.26	1.87	1.93
IL	0.10	0.15	0.10	0.09	0.11	0.04	0.09	0.07	0.09
HM	0.69	3.05	0.53	0.69	1.51	7.52	1.87	1.44	2.89
HY	1.71	3.39	1.91	2.04	2.99	2.30	2.26	1.87	1.93
RU	0.00	0.33	0.00	0.00	0.31	0.00	0.16	0.07	0.01
AP	0.68	0.35	0.61	0.44	1.15	0.12	0.68	0.80	0.47
R_Q	40.25	36.87	40.33	51.08	65.61	89.02	39.40	44.96	63.81
R_AB	34.52	31.42	34.40	16.09	6.38	5.79	32.03	27.78	14.00
R_OR	25.23	31.71	25.27	32.83	28.01	5.19	28.57	27.26	22.19
A_CNK	1.31	1.22	1.30	1.64	2.11	1.74	1.17	1.41	2.10
DIFNI	92.76	83.94	92.90	90.86	85.64	88.54	91.62	91.07	87.55
COLNI	2.52	6.59	2.35	2.88	4.61	9.98	4.21	3.37	4.91
XTLNI	1.20	8.04	1.34	1.43	2.10	1.62	2.22	1.31	1.35
BA	33	449	28	39	174	231	144	20	15
RB	457	172	442	469	497	112	336	504	781
SR	6	125	8	6	3	8	34	5	4
HF	2	5	2	1	3	5	3	1	2
ZR	26	133	23	33	118	15	84	46	36
TA	3.8	1.1	3.1	1.8	1.4	0.8	2.0	4.5	1.2
NB	13	11	10	8	13	18	15	19	39
SC	3.9	7.7	3.3	2.3	5.4	0.7	2.7	2.5	4.4
V	0	28	0	5	35	43	10	1	1
LA	0	26	0	2	18	4	17	5	2
Y	21	33	26	20	34	13	20	20	19
GA	21	17	19	22	26	20	24	25	42
TH	1.8	11.0	1.6	2.4	10.0	2.2	12.0	5.0	2.9
U	14.0	6.3	7.1	7.7	27.4	18.4	3.3	13.0	23.8
LI	83	88	127	50	73	27	135	190	134
F	850	540	825	670	1175	400	1100	1900	2750
B	19	14	20	50	50	20	20	25	30
AS	1.6	1.8	3.3	228.0	145.0	3000.0	1.5	3.7	327.0
SN	33	4	30	28	55	6123	14	22	154
W	9	0	6	5	3	548	3	7	61
CU	0	0	0	0	0	521	0	0	3458
PB	18	12	14	16	24	2141	18	14	65
ZN	24	47	27	27	26	54	61	46	228

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SAMPLE	A10-3001	A10-3004	A10-3005	A10-3006	A10-3008	A10-3008-6	A10-3009-1	A10-3012	A10-3014
UNIT	DClmEB	DCmgST	DCmgST	DCmgST	DClmPL	DClmPL	DCmgST	DClmPL	DCmgST
SIO2	74.53	69.04	68.75	68.52	74.69	74.82	68.93	74.00	68.25
TIO2	0.12	0.59	0.61	0.68	0.11	0.08	0.56	0.09	0.62
AL2O3	13.93	14.42	14.74	14.67	13.86	13.87	14.92	14.52	14.98
FE2O3	1.44	4.10	4.31	4.72	1.48	1.35	3.97	1.10	4.29
MNO	0.04	0.09	0.09	0.10	0.04	0.03	0.08	0.04	0.08
MGO	0.76	1.51	1.52	1.66	0.80	0.68	1.55	0.81	1.53
CAO	0.32	1.40	1.56	1.79	0.30	0.27	1.75	0.40	1.70
NA2O	3.10	3.45	2.83	3.17	3.54	3.46	2.97	3.67	3.87
K2O	4.37	3.95	4.19	3.44	4.64	4.45	4.09	4.39	3.98
P2O5	0.29	0.22	0.21	0.24	0.26	0.28	0.19	0.30	0.24
H2O	0.65	0.70	0.49	0.70	0.60	0.63	0.24	0.40	0.50
Q	39.03	29.58	31.60	31.59	35.21	36.86	30.77	34.86	25.36
OR	26.12	23.65	25.00	20.55	27.51	26.48	24.43	26.14	23.65
AB	26.50	29.55	24.23	27.09	30.02	29.45	25.38	31.26	32.89
AN	0.00	5.57	6.44	7.38	0.00	0.00	7.51	0.02	6.89
C	4.14	2.48	3.25	3.08	3.02	3.38	2.91	3.74	1.80
EN	1.91	3.81	3.83	4.18	2.00	1.70	3.90	2.03	3.83
IL	0.09	0.19	0.19	0.22	0.09	0.06	0.17	0.09	0.17
MN	1.46	4.15	4.36	4.77	1.48	1.36	4.01	1.11	4.31
HY	1.91	3.81	3.83	4.18	2.00	1.70	3.90	2.03	3.83
RU	0.08	0.49	0.51	0.57	0.07	0.05	0.47	0.05	0.53
AP	0.68	0.52	0.49	0.56	0.60	0.65	0.45	0.70	0.56
R_Q	42.58	35.73	39.05	39.87	37.97	39.72	38.18	37.78	30.97
R_AB	28.92	35.70	29.95	34.19	32.37	31.74	31.50	33.88	40.16
R_OR	28.50	28.57	31.00	25.94	29.66	28.54	30.32	28.34	28.87
A_CNK	1.34	1.15	1.23	1.20	1.22	1.26	1.19	1.26	1.09
DIFNI	91.65	82.78	80.91	79.24	92.75	92.80	80.58	92.26	81.91
CDLNI	3.45	8.15	8.39	9.16	3.57	3.13	8.08	3.22	8.31
XTLNI	1.34	8.24	9.13	10.31	1.40	1.19	10.24	1.44	9.58
BA	82	511	547	496	67	30	532	207	569
RB	383	157	164	154	347	386	158	187	160
SR	20	138	127	132	17	8	126	54	141
HF	2	6	6	7	1	2	6	1	6
ZR	54	197	185	216	61	47	165	40	193
TA	2.7	12.0	1.5	0.8	1.2	2.5	1.0	2.4	1.6
NB	13	13	11	13	12	11	11	10	12
SC	3.2	9.4	11.0	10.0	2.5	2.3	10.0	4.5	9.3
V	0	41	16	54	4	0	42	5	45
LA	7	32	32	33	8	4	30	5	30
Y	22	32	35	34	17	23	34	14	29
GA	21	20	16	26	20	22	16	19	21
TH	5.6	12.0	12.0	12.0	5.6	4.2	11.0	1.2	11.0
U	11.0	3.0	4.7	3.6	11.0	7.6	3.7	1.5	2.9
LI	172	88	79	94	162	87	40	34	113
F	1000	620	575	700	1275	990	535	210	645
B	11	25	29	20	30	12	27	40	30
AS	2.7	4.2	10.0	2.9	8.9	7.7	8.4	4.1	2.6
SN	16	11	5	6	21	22	1	12	9
W	5	1	1	1	4	6	0	5	2
CU	0	6	8	0	0	57	8	0	0
PB	27	23	13	20	27	14	18	28	21
ZN	48	72	60	77	43	66	58	78	75

SAMPLE	A10-3017-2	A10-3020	A10-3021-G	A10-3025	A10-3028	A10-3028-3	A10-3033	A10-3037-G	A10-3040
UNIT	DClaNR	DClaNR	DClaNA	DClaNR	DClgKR	DClgKR	DClaNR	DCaplL	DClaNC
SIO2	74.11	73.12	72.06	72.31	73.26	71.85	72.95	70.56	73.17
TIO2	0.11	0.19	0.22	0.25	0.05	0.03	0.33	0.38	0.27
AL2O3	14.11	14.33	15.11	14.72	14.96	15.56	13.70	15.03	13.83
FE2O3	1.27	1.78	1.62	1.96	1.08	0.91	2.54	2.69	1.76
MNO	0.02	0.04	0.04	0.06	0.03	0.04	0.05	0.06	0.05
MGO	0.80	0.87	1.09	1.17	0.73	0.75	1.12	1.31	1.18
CAO	0.31	0.36	0.56	0.85	0.52	0.69	0.61	0.93	0.38
NA2O	2.98	3.46	3.17	3.43	3.67	4.14	2.80	3.39	2.97
K2O	4.91	4.53	4.85	4.46	3.96	3.76	4.76	4.44	4.91
P2O5	0.28	0.27	0.31	0.22	0.54	0.76	0.22	0.26	0.22
H2O	0.73	0.63	0.53	0.54	0.80	0.90	0.47	0.55	0.85
Q	37.16	34.70	33.50	32.51	36.02	32.64	36.41	30.92	33.58
OR	29.35	27.08	28.86	26.53	23.66	22.51	28.42	26.51	29.41
AB	25.48	29.58	27.09	29.19	31.37	35.45	23.91	28.96	25.45
AN	0.00	0.02	0.76	2.79	0.00	0.00	1.60	2.94	0.45
C	3.93	3.76	4.43	3.25	4.68	4.73	3.39	3.61	3.51
EN	2.01	2.19	2.74	2.93	1.84	1.89	2.82	3.29	2.98
IL	0.04	0.09	0.09	0.13	0.06	0.06	0.11	0.13	0.11
HM	1.28	1.80	1.64	1.97	1.09	0.89	2.56	2.72	1.78
HY	2.01	2.19	2.74	2.93	1.84	1.89	2.82	3.29	2.98
RU	0.09	0.15	0.18	0.18	0.02	0.00	0.28	0.32	0.22
AP	0.66	0.63	0.73	0.51	1.27	1.78	0.52	0.61	0.52
R_Q	40.40	37.98	37.45	36.85	39.56	36.02	41.03	35.79	39.34
R_AB	27.70	32.38	30.29	33.08	34.45	39.13	26.95	33.52	28.14
R_OR	31.90	29.64	32.26	30.07	25.99	24.85	32.02	30.69	32.52
A_CNK	1.31	1.27	1.32	1.23	1.33	1.28	1.26	1.24	1.27
DIFNI	91.99	91.36	89.44	88.23	91.05	90.60	88.73	86.39	90.44
COLNI	3.34	4.07	4.46	5.03	2.99	2.88	5.49	6.14	4.87
XTLNI	1.41	1.55	2.68	4.85	1.29	1.32	3.57	5.25	2.54
BA	140	173	341	254	11	28	249	443	334
RB	353	303	246	210	819	1058	261	227	200
SR	29	43	61	76	7	34	61	98	41
HF	2	3	3	2	1	1	4	4	3
ZR	54	73	81	86	32	31	121	124	92
TA	2.2	2.3	1.7	1.4	1.1	7.8	1.8	1.3	1.1
NB	10	12	10	9	31	38	11	10	6
SC	2.2	3.5	3.4	4.5	3.7	2.1	4.8	6.2	3.9
V	0	8	12	12	0	1	16	24	9
LA	9	11	15	15	2	2	20	22	19
Y	20	24	18	22	25	28	26	25	17
GA	20	18	17	17	34	37	19	18	17
TH	6.1	6.3	10.0	7.7	2.1	1.6	12.0	12.0	15.0
U	3.5	4.3	4.0	3.0	3.8	12.0	2.9	5.1	6.1
LI	35	36	28	48	488	540	39	38	10
F	1030	900	460	540	3950	3600	990	640	240
B	25	30	30	17	35	30	15	17	13
AS	1.7	4.1	3.4	2.0	1.7	1.7	1.9	1.5	1.8
SN	13	22	11	10	44	48	11	4	9
W	3	8	4	0	11	8	1	0	3
CU	0	0	0	0	0	0	0	5	26
PB	16	27	23	22	10	23	16	13	24
ZN	44	49	53	49	85	107	57	65	24

SAMPLE	A10-3040-G	A10-3052	A10-3054	A10-3056	A10-3057	A10-3057-G	A10-3060	A10-3071-G	A10-3074
UNIT	DClmMC	DCmgap	DClmED	DClmED	DClmED	DClmED	DClmED	DCmgML	DClmED
SIO2	73.16	67.22	74.05	74.70	74.46	74.06	73.79	72.47	74.38
TIO2	0.30	0.87	0.06	0.07	0.09	0.09	0.03	0.18	0.07
AL203	14.00	15.36	14.51	14.45	14.03	14.30	14.57	14.73	14.36
FE203	1.97	4.37	1.12	1.03	1.16	1.21	1.01	1.66	1.15
MNO	0.05	0.07	0.04	0.04	0.03	0.05	0.02	0.06	0.03
MGO	1.15	1.78	0.73	0.78	0.80	0.85	0.65	0.83	0.69
CAO	0.51	1.26	0.30	0.28	0.24	0.33	0.25	0.63	0.32
NA20	3.06	3.21	3.71	3.22	3.65	3.95	3.45	3.74	3.29
K20	4.96	4.25	4.20	4.28	4.33	4.17	4.29	4.25	4.57
P205	0.23	0.21	0.36	0.32	0.29	0.38	0.44	0.31	0.29
H20	0.37	0.67	0.46	0.70	0.23	0.80	0.63	0.43	0.47
Q	34.41	27.90	35.56	38.68	35.73	33.99	36.75	33.10	37.00
OR	29.52	25.50	25.03	25.49	25.81	24.77	25.68	25.43	27.25
AB	26.05	27.54	31.62	27.43	31.12	33.57	29.53	32.01	28.06
AN	1.03	4.95	0.00	0.00	0.00	0.00	0.00	1.11	0.00
C	3.24	3.74	3.89	4.55	3.36	3.30	4.30	3.61	4.03
EN	2.88	4.50	1.83	1.96	2.01	2.13	1.64	2.09	1.73
IL	0.11	0.15	0.09	0.09	0.06	0.11	0.04	0.13	0.06
HM	1.98	4.43	1.13	1.04	1.17	1.22	1.02	1.68	1.16
HY	2.88	4.50	1.83	1.96	2.01	2.13	1.64	2.09	1.73
RU	0.25	0.80	0.02	0.03	0.06	0.03	0.01	0.11	0.04
AP	0.54	0.49	0.84	0.75	0.68	0.89	1.03	0.73	0.68
R_Q	38.24	34.47	38.56	42.22	38.56	36.81	39.96	36.56	40.08
R_AB	28.95	34.03	34.30	29.95	33.59	36.35	32.12	35.35	30.40
R_OR	32.81	31.50	27.14	27.83	27.86	26.83	27.92	28.09	29.52
A_CNK	1.24	1.26	1.30	1.38	1.26	1.23	1.35	1.24	1.31
DIFNI	89.98	80.94	92.21	91.60	92.66	92.33	91.96	90.54	92.30
COLNI	4.97	9.08	3.05	3.08	3.24	3.45	2.70	3.90	2.96
XTLNI	3.05	8.10	1.28	1.37	1.41	1.49	1.15	2.57	1.21
BA	382	888	26	6	41	23	18	215	12
RB	203	153	567	497	430	506	668	220	304
SR	49	132	0	3	10	8	11	55	9
HF	4	6	2	1	2	1	0	2	2
ZR	99	222	34	37	41	42	14	63	39
TA	1.1	1.1	5.1	13.0	3.3	3.2	3.8	1.9	2.0
NB	7	9	15	13	13	15	23	9	12
SC	3.9	9.4	2.1	2.6	3.1	2.4	2.6	4.1	2.8
V	10	69	0	2	0	1	0	10	0
LA	22	38	0	3	3	4	0	9	3
Y	19	32	27	18	26	19	29	18	24
GA	17	19	25	28	21	24	29	16	21
TH	17.0	16.0	2.2	2.5	3.8	3.5	1.1	4.4	3.0
U	5.6	4.1	4.0	2.4	5.0	4.1	1.9	5.2	7.6
LI	19	31	76	254	73	341	70	91	47
F	240	660	1770	1950	1085	3200	1660	395	495
B	10	19	21	30	27	25	19	16	15
AS	1.3	8.2	2.0	0.7	1.5	39.0	4.7	1.7	4.1
SN	10	2	39	30	26	48	24	21	13
W	0	0	8	8	6	10	6	3	2
CU	22	8	0	0	0	0	0	0	13
PB	15	12	25	20	19	26	0	20	20
ZN	32	70	51	46	47	65	56	41	29

SAMPLE	A10-3077	A10-3078	A10-3079	A10-3082	A10-3085-6	A10-3086	A10-3087	A10-3087-2	A10-3093
UNIT	DCogML	DCogML	DCgdS6	DClmED	DCgdS6	DCgdS6	DClmL6	DClmL6	DClmED
SIO2	70.20	69.95	67.15	73.39	66.75	68.39	72.60	72.03	72.56
TIO2	0.40	0.38	0.73	0.16	0.74	0.64	0.19	0.23	0.19
AL203	15.21	15.21	14.95	14.64	15.15	15.06	14.78	14.96	14.70
FE203	2.81	2.68	4.97	1.57	5.10	4.24	1.85	1.93	1.50
MNO	0.05	0.06	0.09	0.04	0.10	0.08	0.05	0.05	0.05
MGO	1.41	1.24	1.68	0.92	1.78	1.63	0.97	0.99	1.10
CAO	1.01	1.04	2.08	0.46	2.01	1.71	0.71	0.70	0.40
NA20	3.19	3.51	3.14	3.48	3.42	3.07	3.41	3.72	3.04
K20	4.34	4.39	3.61	4.51	3.77	4.02	4.69	5.03	4.69
P205	0.23	0.25	0.22	0.31	0.22	0.16	0.24	0.25	0.24
H20	0.49	0.48	0.47	0.34	0.33	0.69	0.35	0.24	0.73
Q	31.77	29.73	29.12	34.57	26.33	29.79	32.68	28.89	35.64
OR	25.97	26.31	21.65	26.82	22.52	24.02	27.88	29.79	28.17
AB	27.30	30.09	26.94	29.60	29.22	26.24	29.00	31.51	26.12
AN	3.55	3.57	9.00	0.25	8.61	7.51	1.96	1.84	0.42
C	4.02	3.43	2.66	3.96	2.34	2.96	3.39	2.72	4.54
EN	3.55	3.13	4.24	2.30	4.48	4.10	2.43	2.47	2.78
IL	0.11	0.13	0.20	0.09	0.22	0.17	0.11	0.11	0.11
HM	2.84	2.72	5.04	1.58	5.15	4.28	1.86	1.93	1.52
HY	3.55	3.13	4.24	2.30	4.48	4.10	2.43	2.47	2.78
RU	0.35	0.32	0.64	0.12	0.63	0.56	0.13	0.17	0.14
AP	0.54	0.59	0.52	0.72	0.52	0.37	0.56	0.58	0.57
R_Q	37.36	34.52	37.47	38.00	33.73	37.22	36.49	32.03	39.63
R_AB	32.11	34.93	34.67	32.53	37.43	32.78	32.38	34.94	29.05
R_OR	30.54	30.55	27.86	29.47	28.84	30.01	31.13	33.03	31.33
A_CNK	1.29	1.22	1.16	1.28	1.13	1.20	1.23	1.17	1.36
DIFNI	85.04	86.12	77.71	90.98	78.06	80.04	89.56	90.18	89.93
COLNI	6.50	5.97	9.48	3.97	9.84	8.56	4.39	4.51	4.41
XTLNI	6.04	5.76	11.98	1.87	11.75	10.38	3.66	3.57	2.37
BA	450	476	625	174	634	702	185	285	233
RB	210	219	145	353	149	134	287	272	247
SR	98	98	156	37	152	153	45	54	50
HF	5	4	7	2	7	7	3	2	2
ZR	127	126	229	67	213	197	87	83	79
TA	1.1	1.5	1.4	2.6	1.3	1.2	1.8	2.0	1.4
NB	11	9	12	11	13	11	10	10	11
SC	6.5	5.9	13.0	3.0	13.0	11.0	3.2	2.8	2.6
V	27	29	68	0	61	45	5	11	7
LA	23	23	38	11	38	37	13	19	13
Y	25	25	36	24	35	31	27	24	20
GA	19	18	20	23	19	19	19	19	17
TH	13.0	13.0	14.0	10.0	13.0	15.0	7.8	17.0	10.0
U	3.3	5.5	3.2	11.0	3.8	3.4	5.1	4.1	3.4
LI	83	89	67	161	66	56	85	58	75
F	610	635	650	1125	570	525	1050	1020	490
B	16	15	12	15	0	12	14	12	19
AS	0.7	1.3	3.0	10.0	4.2	3.3	1.7	2.4	2.2
SN	11	12	6	18	3	9	14	10	10
W	0	0	1	5	0	0	0	0	1
CU	7	0	9	0	9	10	0	0	0
PB	13	18	10	24	14	16	15	13	11
ZN	59	59	70	52	68	66	52	50	44

SAMPLE	A10-3095-6	A10-3098-6	A10-3100	A10-3100-1	A10-3105	A10-3106	A10-3107	A10-3107-6	A10-3108-6
UNIT	BClmED	BCpd96	BClmL6	BClmL6	BCpd96	BCpd96	BCmgJ6	BCmgJ6	BCmgLR
SIO2	72.25	66.88	73.01	72.74	66.47	65.76	72.64	73.21	68.88
TIO2	0.19	0.71	0.20	0.21	0.77	0.80	0.21	0.20	0.50
AL203	14.91	15.37	14.40	14.68	15.23	15.49	14.21	14.12	15.18
FE203	1.55	4.94	1.90	1.97	5.15	5.36	1.88	1.88	3.59
MNO	0.05	0.10	0.05	0.05	0.10	0.10	0.04	0.03	0.08
MGO	1.01	1.77	0.88	0.86	1.79	1.84	0.90	0.98	1.36
CAO	0.35	2.04	0.60	0.59	2.11	2.35	0.58	0.53	1.56
NA20	3.70	3.24	3.18	3.08	3.44	3.34	3.01	3.01	3.26
K20	4.87	3.61	4.78	4.91	3.62	3.72	5.36	5.39	4.19
P205	0.27	0.22	0.22	0.22	0.22	0.24	0.17	0.18	0.22
H20	0.80	0.65	0.25	0.35	0.23	0.42	0.44	0.51	0.40
Q	30.83	28.13	34.49	34.33	26.31	25.23	32.82	33.12	29.47
OR	29.05	21.59	28.50	29.24	21.65	22.23	32.02	32.03	25.08
AB	31.57	27.72	27.12	26.24	29.43	28.54	25.72	25.59	27.91
AN	0.00	8.78	1.55	1.50	9.13	10.19	1.78	1.46	6.37
C	3.58	2.98	3.45	3.78	2.37	2.29	2.83	2.81	3.01
EN	2.54	4.46	2.21	2.16	4.51	4.63	2.26	2.45	3.43
IL	0.11	0.22	0.11	0.11	0.22	0.22	0.09	0.06	0.17
MH	1.56	5.00	1.91	1.98	5.21	5.41	1.90	1.89	3.63
HY	2.54	4.46	2.21	2.16	4.51	4.63	2.26	2.45	3.43
RU	0.13	0.60	0.14	0.15	0.66	0.69	0.17	0.17	0.41
AP	0.63	0.52	0.51	0.51	0.52	0.56	0.40	0.42	0.52
R_Q	33.71	36.32	38.28	38.22	34.00	33.20	36.24	36.50	35.73
R_AB	34.52	35.79	30.09	29.22	38.02	37.56	28.40	28.20	33.85
R_OR	31.77	27.88	31.62	32.56	27.97	29.24	35.36	35.30	30.42
A_CNK	1.24	1.19	1.25	1.28	1.14	1.12	1.20	1.20	1.19
DIFNX	91.45	77.45	90.11	89.81	77.39	76.00	90.57	90.74	82.46
COLNX	4.21	9.67	4.23	4.25	9.93	10.26	4.25	4.41	7.23
XTLNX	1.78	11.90	3.10	3.01	12.29	13.43	3.37	3.18	8.78
BA	249	630	239	252	623	795	462	426	521
RB	273	144	256	262	143	149	210	215	176
SR	46	162	44	45	160	171	76	64	123
HF	2	7	3	3	8	8	4	4	5
ZR	75	211	84	87	228	239	112	117	160
TA	1.6	1.1	1.6	1.6	1.4	1.4	1.4	1.0	1.2
NB	11	12	9	10	13	13	11	11	10
SC	3.1	13.0	3.1	3.5	14.0	14.0	2.9	3.7	9.0
V	9	74	8	10	68	72	0	10	34
LA	16	39	16	17	41	44	21	19	28
Y	18	35	25	24	41	41	20	19	35
GA	18	20	18	18	21	19	17	17	20
TH	10.0	14.0	12.0	13.0	14.0	15.0	12.0	11.0	12.0
U	4.5	2.8	6.2	6.5	2.5	2.3	5.1	4.3	2.9
LI	89	50	91	99	66	50	18	30	73
F	600	460	925	1000	725	840	470	405	775
B	19	12	12	11	0	0	17	13	10
AS	2.3	1.8	1.5	1.6	2.0	1.3	23.0	6.8	4.6
SN	13	2	7	6	4	4	7	4	9
W	3	0	0	2	0	1	1	2	2
CU	0	15	0	0	8	12	0	5	5
PB	18	10	0	20	12	13	18	19	22
ZN	44	72	51	50	72	69	38	43	59

SAMPLE	A10-3109-6	A10-3120-6	A10-3121	A10-3121-1	A10-3122	A10-3129-1	A10-3136-1	A10-3140	A10-3144
UNIT	DCogLR	DClaL6	DCogLR	DClaEB	DCogLR	DClaED	DCogLR	DCogLR	DCogLR
SIO2	71.23	71.90	71.36	74.32	73.09	73.52	70.31	71.37	70.59
TIO2	0.42	0.23	0.36	0.12	0.27	0.12	0.45	0.34	0.41
AL203	14.15	14.82	14.39	14.10	13.97	14.54	14.50	14.46	14.51
FE203	3.21	1.70	2.82	1.30	2.27	1.34	3.43	2.72	3.10
MNO	0.08	0.04	0.07	0.04	0.07	0.06	0.08	0.09	0.08
MGO	1.23	1.02	1.11	0.63	1.06	0.78	1.32	1.24	1.27
CAO	1.14	0.55	0.59	0.37	0.52	0.47	1.36	0.78	1.15
NA20	2.93	3.34	2.84	3.33	2.93	3.78	3.43	3.41	3.48
K20	4.02	4.90	4.63	4.34	4.54	4.36	4.19	4.48	4.09
P205	0.18	0.29	0.22	0.34	0.22	0.30	0.18	0.21	0.25
H20	0.59	0.76	0.83	0.74	0.97	0.52	0.60	0.74	0.55
Q	35.52	32.21	35.38	37.77	36.97	33.75	30.16	31.73	31.36
OR	24.12	29.34	27.83	25.94	27.14	25.98	24.97	26.74	24.45
AB	25.14	28.60	24.42	28.47	25.06	32.22	29.24	29.11	29.76
AN	4.54	0.84	1.51	0.00	1.15	0.37	5.61	2.52	4.11
C	3.38	3.76	4.23	3.96	3.85	3.49	2.29	3.11	2.89
EN	3.11	2.57	2.81	1.59	2.67	1.96	3.31	3.12	3.20
IL	0.17	0.09	0.15	0.09	0.15	0.13	0.17	0.19	0.17
HM	3.26	1.72	2.87	1.31	2.29	1.35	3.46	2.74	3.13
HY	3.11	2.57	2.81	1.59	2.67	1.96	3.31	3.12	3.20
RU	0.33	0.19	0.29	0.08	0.19	0.05	0.36	0.24	0.32
AP	0.42	0.68	0.52	0.80	0.52	0.70	0.42	0.49	0.59
R_Q	41.90	35.73	40.37	40.98	41.46	36.71	35.75	36.23	36.65
R_AB	29.66	31.73	27.87	30.88	28.10	35.04	34.66	33.24	34.78
R_OR	28.45	32.54	31.76	28.14	30.44	28.25	29.60	30.53	28.57
A_CNK	1.26	1.26	1.34	1.30	1.31	1.23	1.15	1.22	1.19
DIFNI	84.78	90.15	87.63	92.18	89.17	91.95	84.37	87.58	85.58
COLNI	6.54	4.38	5.83	2.99	5.11	3.44	6.94	6.06	6.50
XTLNI	6.72	2.64	3.48	1.11	3.02	1.74	7.93	4.70	6.35
BA	394	323	389	124	263	174	489	297	388
RB	177	306	263	393	226	226	171	231	194
SR	102	52	78	15	59	39	109	65	96
HF	4	3	4	0	3	0	6	5	4
ZR	145	91	126	48	93	48	150	111	133
TA	1.1	2.1	1.6	3.2	1.5	1.5	1.2	1.6	2.0
NB	9	13	11	16	10	9	12	11	11
SC	7.9	3.3	6.3	2.7	4.8	2.6	8.3	6.9	7.6
V	34	7	24	5	19	0	34	19	23
LA	25	19	24	6	14	6	26	22	22
Y	34	21	32	22	26	17	34	29	31
GA	16	19	18	21	16	16	17	18	18
TH	10.0	14.0	12.0	5.2	7.1	2.6	10.0	11.0	8.7
U	2.6	4.6	6.1	7.3	4.5	4.1	3.5	3.1	2.9
LI	66	93	84	63	67	120	66	92	78
F	635	1190	905	1355	440	320	505	775	610
B	15	25	23	19	24	35	0	15	12
AS	2.2	2.9	10.0	14.0	3.0	3.0	2.2	19.0	2.0
SN	7	17	15	29	10	10	9	4	6
W	0	4	6	7	3	1	0	2	2
CU	0	0	31	7	10	0	0	10	0
PB	17	16	17	21	20	18	18	13	16
ZN	51	48	85	40	55	23	57	52	50

SAMPLE	A10-3147	A10-3149	A10-3158
UNIT	BCaqLR(alt)	BCqdSS	BCaqLR
SIO2	74.30	68.23	69.03
TIO2	0.24	0.53	0.50
AL203	13.34	14.62	15.10
FE203	1.93	3.83	3.74
MNO	0.07	0.07	0.09
MGO	1.00	1.51	1.39
CAO	0.49	1.75	1.12
NA20	2.79	3.64	2.96
K20	4.58	3.96	4.38
P205	0.18	0.18	0.22
H20	0.40	0.57	0.55
Q	38.91	26.85	31.65
OR	27.39	23.82	26.29
AB	23.86	31.32	25.42
AN	1.27	7.63	4.18
C	3.37	1.62	4.04
EN	2.52	3.82	3.51
IL	0.15	0.15	0.20
MN	1.95	3.90	3.80
HY	2.52	3.82	3.51
RU	0.16	0.46	0.40
AP	0.42	0.42	0.52
* Q	43.16	32.74	37.97
*	26.47	38.20	30.49
	30.37	29.06	31.54
A_CNK	1.28	1.09	1.30
DIFNI	90.16	81.99	83.36
COLNI	4.62	7.87	7.50
XTLNI	3.03	10.31	6.64
BA	193	505	502
RB	176	158	182
SR	52	129	116
HF	3	6	4
ZR	88	170	155
TA	1.1	1.2	1.1
NB	7	11	11
SC	4.7	9.3	10.0
V	15	39	35
LA	11	30	26
Y	24	35	41
GA	13	16	18
TH	5.6	11.0	9.4
U	4.8	3.3	3.7
LI	29	53	85
F	335	640	460
B	15	0	17
AS	1.6	2.7	5.7
SN	11	6	12
W	5	0	2
CU	15	5	5
PB	17	12	17
ZN	23	61	64

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SAMPLE	A15-0002	A15-0003	A15-0007	A15-0007-2-A	A15-0007-2-B	A15-0008	A15-0008-3	A15-0008-4	A15-0014-2
UNIT	DClaLG	DClaLG	DCpdGL	DCpdGL	DCpdGL	DClgWL	DClgWL	DClgWL	DClgWL
SIO2	72.95	71.49	66.71	65.36	68.33	72.20	72.56	72.20	73.30
TIO2	0.17	0.24	0.76	0.84	0.66	0.01	0.02	0.02	0.07
AL203	14.55	15.12	15.40	15.44	14.83	15.43	15.29	15.50	14.99
FE203	1.67	2.03	4.84	5.54	4.45	1.03	1.26	1.15	1.25
MNO	0.04	0.04	0.09	0.10	0.08	0.03	0.04	0.04	0.04
MGO	0.91	0.90	1.87	1.95	1.64	0.72	0.66	0.63	0.84
CAO	0.51	0.46	1.90	2.28	1.96	0.43	0.57	0.60	0.50
NA2O	3.31	3.15	3.06	3.21	2.96	3.58	3.97	4.20	3.69
K2O	4.96	5.41	3.85	3.76	3.99	4.33	3.46	3.48	3.82
P2O5	0.26	0.28	0.21	0.25	0.19	0.67	0.69	0.71	0.48
H2O	0.80	0.70	0.70	0.55	0.42	0.80	0.91	0.81	1.11
Q	33.20	31.18	28.27	25.52	31.67	34.10	35.64	33.88	36.27
OR	29.54	32.28	23.07	22.53	21.52	25.90	20.70	20.82	22.80
AB	28.19	26.89	26.23	27.51	25.38	30.63	33.98	35.94	31.50
AN	0.83	0.45	8.16	9.80	8.59	0.00	0.00	0.00	0.00
C	3.45	3.95	3.29	2.57	3.00	4.90	5.07	4.88	4.82
EN	2.28	2.26	4.72	4.92	4.14	1.81	1.66	1.59	2.11
IL	0.09	0.09	0.20	0.22	0.17	0.02	0.04	0.04	0.09
HM	1.68	2.05	4.90	5.61	4.51	0.99	1.22	1.11	1.26
HY	2.28	2.26	4.72	4.92	4.14	1.81	1.66	1.59	2.11
RU	0.13	0.20	0.67	0.74	0.58	0.00	0.00	0.00	0.03
AP	0.61	0.66	0.49	0.59	0.45	1.57	1.62	1.67	1.12
R_Q	36.51	34.51	36.44	33.78	40.31	37.62	39.46	37.38	40.05
R_AB	31.01	29.76	33.82	36.41	32.30	33.80	37.62	39.65	34.78
R_OR	32.48	35.73	29.75	29.81	27.39	28.58	22.92	22.97	25.17
A_CNK	1.24	1.27	1.22	1.14	1.20	1.36	1.35	1.32	1.35
DIFNI	90.93	90.35	77.57	75.56	78.56	90.63	90.31	90.65	90.57
COLNI	4.05	4.40	9.82	10.75	8.82	2.90	3.00	2.81	3.46
XTLNI	2.43	2.04	11.47	13.25	11.49	1.27	1.17	1.11	1.48
BA	172	230	781	775	652	37	14	24	15
RB	310	361	145	143	138	843	745	737	650
SR	37	40	151	177	158	14	21	24	10
HF	3	3	8	8	6	4	4	0	0
ZR	83	104	234	227	212	23	42	16	34
TA	4.8	2.1	1.9	0.9	1.2	0.9	5.0	4.1	5.9
NB	13	16	14	13	12	30	29	28	30
SC	2.1	2.6	12.0	14.0	11.0	5.8	1.7	1.4	5.4
V	7	6	62	70	64	1	0	7	0
LA	16	21	43	38	39	25	0	0	0
Y	19	21	31	36	35	22	34	36	34
GA	26	26	20	18	16	33	34	32	31
TH	12.0	15.0	15.0	12.0	13.0	12.0	1.7	1.1	2.1
U	4.2	6.6	3.5	2.1	2.0	2.6	3.8	2.6	2.5
LI	138	164	116	55	76	205	205	205	173
F	1225	1575	720	470	780	2300	2645	2705	2100
B	25	30	20	15	12	30	12	12	15
AS	2.2	2.0	10.0	2.0	7.8	2.7	3.8	4.2	2.7
SN	15	18	7	0	2	28	26	27	29
W	3	3	3	0	0	2	8	8	8
CU	0	0	2	10	10	0	0	0	8
PB	23	30	28	12	0	17	14	0	12
ZN	53	66	87	76	67	72	75	77	51

SAMPLE	A15-0014-3	A15-0014-4	A15-0014-5	A15-0015	A15-0016	A15-0018	A15-0019	A15-0020	A15-0020-2
UNIT	DClgNL	DClgNL	DCgdGL	DCgdGL	DCgdGL	DClgNL	DCagST	DClgNL	DClgNL
SIO2	73.44	73.95	67.62	67.72	67.30	74.05	69.48	74.21	72.97
TIO2	0.08	0.05	0.62	0.72	0.67	0.09	0.47	0.08	0.02
AL203	14.24	14.43	15.38	15.03	15.55	13.79	14.97	14.13	15.01
FE203	1.08	1.06	4.39	4.89	4.62	1.39	3.53	1.57	1.18
MNO	0.03	0.03	0.09	0.08	0.08	0.03	0.09	0.04	0.05
MGO	0.77	0.71	1.72	1.77	1.72	0.87	1.51	0.79	0.82
CAO	0.30	0.35	1.37	2.07	2.05	0.38	1.35	0.38	0.73
NA20	4.02	3.29	3.10	3.37	3.02	3.19	3.40	3.41	4.69
K20	4.35	4.30	4.18	3.53	3.92	4.35	4.10	4.40	3.16
P205	0.36	0.35	0.24	0.18	0.20	0.29	0.21	0.36	0.72
H20	0.87	0.77	0.58	0.52	0.30	0.80	0.60	0.84	0.90
Q	32.62	37.80	29.13	28.21	28.57	38.13	29.71	36.54	32.50
OR	26.03	25.79	25.05	21.01	23.39	26.14	24.47	26.17	18.77
AB	34.41	28.22	26.57	28.70	25.78	27.42	29.02	29.01	39.85
AN	0.00	0.00	5.29	9.15	8.94	0.00	5.37	0.00	0.00
C	2.95	4.42	3.89	2.35	3.12	3.89	3.01	3.77	3.89
EN	1.94	1.79	4.34	4.44	4.32	2.20	3.79	1.98	2.05
IL	0.06	0.07	0.20	0.17	0.17	0.07	0.19	0.09	0.04
HM	1.09	1.07	4.45	4.92	4.66	1.41	3.56	1.58	1.11
HY	1.94	1.79	4.34	4.44	4.32	2.20	3.79	1.98	2.05
RU	0.05	0.02	0.53	0.63	0.58	0.06	0.37	0.04	0.00
AP	0.84	0.82	0.56	0.42	0.47	0.68	0.49	0.84	1.68
R_Q	35.05	41.17	36.07	36.20	36.76	41.39	35.71	39.84	35.67
R_AB	36.97	30.74	32.91	36.83	33.16	29.90	34.88	31.63	43.73
R_OR	27.97	28.09	31.02	26.97	30.09	28.51	29.41	28.53	20.60
A_CNK	1.20	1.35	1.27	1.14	1.20	1.30	1.20	1.28	1.20
DIFNI	93.06	91.81	80.75	77.92	77.74	91.69	83.20	91.71	91.13
COLNI	3.10	2.93	8.98	9.53	9.15	3.68	7.55	3.64	3.31
XTLNI	1.36	1.26	8.34	12.26	11.97	1.54	8.03	1.39	1.44
BA	54	33	752	643	770	47	472	42	25
RB	497	539	303	144	144	396	183	473	613
SR	10	7	146	151	166	16	131	17	12
HF	1	0	5	7	8	1	6	1	1
ZR	33	23	182	237	220	51	158	40	18
TA	3.0	4.2	1.7	1.5	2.6	1.1	1.2	3.3	8.2
NB	16	18	13	14	14	13	11	16	34
SC	2.1	2.2	9.3	11.0	11.0	1.9	7.9	1.6	1.8
V	0	0	53	58	56	1	36	0	0
LA	6	2	30	38	39	5	26	5	0
Y	27	25	47	43	28	19	26	27	28
GA	24	24	19	16	25	23	22	20	33
TH	4.4	1.9	12.0	16.0	14.0	5.0	10.0	3.6	1.5
U	2.2	1.7	3.1	2.8	2.7	4.0	3.5	2.2	1.9
LI	134	97	220	54	65	122	100	153	92
F	1500	1640	2170	870	660	1450	660	1860	2065
B	13	12	16	26	20	30	35	14	16
AS	2.0	3.2	8.2	4.1	4.7	3.7	3.3	3.1	2.5
SN	25	23	11	0	4	21	6	20	28
W	5	6	2	2	1	4	2	4	8
CU	0	0	13	11	6	0	0	0	0
PB	13	0	15	20	23	14	27	11	0
ZN	36	27	103	69	79	39	72	63	44

SAMPLE	A15-0027	A15-0035	A15-0041	A15-0044-2	A15-0044-3	A15-0046	A15-0046-2	A15-0046-3	A15-0049
UNIT	DClgRL	BCgdGL	DClgRL	DCleED	DCleED	DCleED	DCleED	DCleED	BCgdSS
SIO2	74.99	66.27	73.55	74.37	73.35	74.40	75.12	73.03	66.87
TIO2	0.04	0.75	0.04	0.10	0.08	0.07	0.10	0.13	0.75
AL203	14.18	15.39	14.66	14.40	14.02	14.15	14.16	14.11	14.96
FE203	1.04	5.08	1.18	1.28	1.33	1.43	1.45	1.31	5.07
MNO	0.03	0.08	0.04	0.03	0.04	0.04	0.05	0.03	0.10
MGO	0.74	1.88	0.61	0.74	0.81	0.84	0.85	0.84	1.77
CAO	0.37	2.14	0.45	0.30	0.28	0.31	0.31	0.34	1.83
NA20	3.87	3.17	3.38	3.61	3.25	3.18	3.14	3.68	3.25
K20	4.19	3.77	4.14	4.31	4.44	4.41	4.64	4.30	3.80
P205	0.37	0.23	0.46	0.33	0.29	0.28	0.27	0.31	0.21
H20	0.75	0.53	0.70	0.40	0.80	0.90	0.60	0.70	0.48
Q	35.35	26.99	37.62	35.90	36.97	38.07	37.76	34.54	27.83
OR	24.80	22.58	24.82	25.39	26.80	26.30	27.41	25.91	22.79
AB	32.76	27.16	28.98	30.66	28.06	27.13	26.53	31.72	27.88
AN	0.00	9.23	0.00	0.00	0.00	0.00	0.00	0.00	7.81
C	3.28	2.79	4.68	3.81	3.94	4.18	3.96	3.46	2.71
EN	1.84	4.74	1.54	1.85	2.06	2.11	2.11	2.13	4.47
IL	0.06	0.17	0.08	0.06	0.09	0.09	0.11	0.07	0.22
HM	1.04	5.14	1.19	1.29	1.36	1.44	1.45	1.33	5.14
HY	1.84	4.74	1.54	1.85	2.06	2.11	2.11	2.13	4.47
RU	0.01	0.67	0.00	0.07	0.04	0.03	0.04	0.10	0.65
AP	0.86	0.54	1.08	0.77	0.69	0.65	0.63	0.73	0.49
R_Q	38.04	35.17	41.15	38.95	40.26	41.61	41.18	37.47	35.45
R_AB	35.26	35.40	31.70	33.27	30.56	29.65	28.93	34.42	35.52
R_OR	26.69	29.43	27.15	27.77	29.18	28.75	29.89	28.11	29.03
A_CNK	1.23	1.17	1.35	1.29	1.32	1.34	1.32	1.25	1.17
DIFNI	92.91	76.72	91.42	92.16	91.83	91.51	91.70	92.18	78.51
COLNI	2.95	10.06	2.82	3.20	3.50	3.64	3.67	3.53	9.83
XTLNI	1.29	12.55	1.08	1.30	1.44	1.48	1.48	1.49	10.95
BA	16	730	8	32	22	20	59	82	610
RB	537	167	601	442	426	411	463	406	160
SR	6	173	5	8	8	6	16	28	147
HF	0	7	1	1	1	1	1	1	6
ZR	26	230	36	49	47	48	61	54	211
TA	3.3	1.3	0.9	5.5	2.8	2.7	2.5	2.8	1.4
NB	16	13	20	14	14	11	12	13	12
SC	2.1	12.0	2.2	2.7	2.3	2.3	2.8	2.9	13.0
V	0	65	3	3	1	1	4	5	58
LA	0	37	2	5	5	5	7	7	37
Y	26	42	20	18	20	20	20	19	40
GA	24	18	26	23	24	25	20	24	18
TH	2.4	13.0	3.1	3.7	3.7	4.2	5.4	5.1	14.0
U	2.1	2.3	2.9	3.8	3.6	3.4	2.3	5.9	3.8
LI	140	96	329	235	212	256	386	213	72
F	2000	1105	2900	1075	1150	1450	1800	1400	690
B	19	28	25	30	45	30	28	20	17
AS	1.4	3.4	1.6	2.0	3.3	7.4	1.3	4.3	2.3
SN	23	5	43	26	26	35	36	22	4
W	7	1	9	5	8	10	6	5	0
CU	0	17	0	0	0	1	0	0	11
PB	0	13	15	16	24	25	25	17	0
ZN	32	79	68	45	57	66	53	54	79

SAMPLE	A15-0050	A15-0050-2	A15-0054	A15-0055	A15-0055-2	A15-0055-212	A15-0055-3	A15-0057	A15-0060
UNIT	DCgdS6	DCgdS6	DClmL6	DCmgKL	DCmgKL	DCmgKL	DCmgKL	DCmgBT	DClmL6
SIO2	68.09	66.20	74.18	72.87	71.85	72.89	72.17	66.66	74.04
TIO2	0.79	0.83	0.11	0.21	0.21	0.18	0.22	0.75	0.13
AL203	14.07	15.18	14.03	14.31	14.65	14.50	14.80	15.05	14.30
FE203	5.29	5.49	1.40	1.81	1.73	1.64	1.71	5.19	1.44
MNO	0.13	0.12	0.03	0.04	0.04	0.04	0.04	0.10	0.04
MGO	1.86	1.83	0.78	1.05	0.92	0.97	1.04	1.88	0.80
CAO	1.86	2.32	0.27	0.50	0.54	0.56	0.56	2.02	0.31
NA20	2.98	2.93	3.58	3.55	3.70	3.63	3.09	2.87	3.12
K20	3.82	3.69	4.77	5.28	5.05	4.98	5.06	3.92	4.70
P205	0.23	0.23	0.26	0.23	0.27	0.25	0.25	0.23	0.30
H20	0.69	0.51	0.40	0.29	0.51	0.74	0.64	0.48	0.83
Q	30.28	28.31	34.10	30.05	29.52	30.87	33.12	28.85	36.97
OR	22.80	22.09	28.36	31.28	30.18	29.56	30.25	23.50	28.01
AB	25.44	25.09	30.45	30.08	31.63	30.82	26.42	24.61	26.59
AN	7.79	10.12	0.00	0.98	0.92	1.15	1.15	8.63	0.00
C	2.22	2.73	2.99	2.40	2.79	2.72	3.86	3.00	4.11
EN	4.67	4.61	1.95	2.62	2.32	2.42	2.62	4.74	2.01
IL	0.28	0.26	0.06	0.09	0.09	0.09	0.09	0.22	0.09
MH	5.34	5.56	1.41	1.81	1.75	1.65	1.73	5.26	1.45
HY	4.67	4.61	1.95	2.62	2.32	2.42	2.62	4.74	2.01
RU	0.65	0.70	0.08	0.17	0.17	0.14	0.18	0.65	0.09
AP	0.54	0.54	0.61	0.53	0.63	0.58	0.59	0.54	0.70
R_Q	38.57	37.50	36.70	32.88	32.32	33.83	36.88	37.49	40.37
R_AB	32.40	33.24	32.77	32.91	34.63	33.78	29.43	31.98	29.04
R_OR	29.03	29.26	30.53	34.22	33.05	32.40	33.69	30.53	30.59
A_CNK	1.13	1.16	1.22	1.15	1.17	1.17	1.28	1.19	1.33
DIFNI	78.51	75.48	92.90	91.41	91.34	91.26	89.79	78.96	91.56
COLNI	10.29	10.43	3.42	4.52	4.15	4.16	4.43	10.22	3.54
XTLNI	11.07	13.36	1.37	2.81	2.54	2.84	2.99	11.96	1.41
BA	631	685	60	336	288	322	296	681	97
RB	153	144	443	294	290	297	277	155	408
SR	158	161	21	51	53	58	55	156	20
HF	6	7	2	3	4	3	3	7	2
ZR	205	218	56	103	94	96	99	216	53
TA	1.1	1.4	2.7	1.9	2.0	2.0	1.7	1.1	2.3
NB	11	13	13	14	13	14	13	13	13
SC	14.0	15.0	2.2	2.9	2.8	2.9	2.8	14.0	1.6
V	60	63	5	5	7	7	7	64	0
LA	32	39	7	23	20	18	19	38	8
Y	46	35	21	26	19	24	22	41	26
GA	17	21	23	19	20	19	18	20	19
TH	10.0	13.0	6.1	15.0	15.0	12.0	15.0	13.0	5.2
U	2.8	3.2	2.2	4.1	3.5	4.0	3.1	2.4	2.0
LI	65	66	209	85	93	94	79	82	135
F	645	725	1650	1075	1035	985	995	865	1525
B	15	13	25	25	23	28	23	14	22
AS	8.0	2.0	4.7	4.8	4.2	7.3	3.5	3.5	3.1
SN	6	5	20	13	13	8	5	4	16
W	1	0	3	2	2	4	2	1	3
CU	8	11	0	0	0	0	6	16	0
PB	17	0	21	14	19	11	13	0	11
ZN	70	73	77	48	53	48	50	76	52

SAMPLE	A15-0060-2	A15-0062	A15-0067	A15-0067-2	A15-0068	A15-0068-2	A15-0068-3	A15-0072	A15-0072-2
UNIT	BC1mL6	BC1mL6	BC1gNL	BC1mL6	BC1gNL	BC1gNL	BC1gNL	BCaq86	BCaq86
SIO2	74.13	76.36	74.31	72.86	73.93	75.17	72.78	66.25	66.73
TIO2	0.15	0.07	0.10	0.11	0.04	0.03	0.03	0.77	0.71
AL2O3	13.98	12.89	14.05	14.52	14.66	14.16	15.04	15.45	15.11
FE2O3	1.63	1.11	1.50	1.64	1.10	0.97	0.91	5.11	4.77
MNO	0.04	0.03	0.03	0.05	0.03	0.02	0.04	0.10	0.10
MGO	0.79	0.73	0.81	0.80	0.75	0.70	0.60	1.91	1.83
CAO	0.38	0.34	0.30	0.41	0.28	0.37	0.79	2.24	2.06
NA2O	3.30	3.41	3.25	3.76	4.68	4.75	4.35	3.64	3.47
K2O	4.79	4.30	4.57	4.96	3.88	3.02	3.60	3.78	3.66
P2O5	0.25	0.27	0.28	0.23	0.41	0.38	0.70	0.22	0.23
H2O	0.72	0.44	0.70	0.35	0.80	0.68	0.81	0.29	0.49
Q	35.50	39.15	36.96	30.77	30.72	35.03	33.13	23.70	26.38
OR	28.49	25.56	27.23	29.53	22.95	17.92	21.51	22.48	21.94
AB	28.08	28.99	27.70	32.02	39.59	40.31	37.19	30.96	29.75
AN	0.25	0.00	0.00	0.53	0.00	0.00	0.00	9.72	8.83
C	3.29	2.63	3.78	2.79	2.76	3.08	4.03	1.83	2.27
EN	1.98	1.83	2.03	2.01	1.87	1.75	1.51	4.78	4.62
IL	0.09	0.06	0.06	0.11	0.06	0.04	0.06	0.22	0.22
HM	1.64	1.12	1.51	1.65	1.10	0.97	0.89	5.14	4.83
HY	1.98	1.83	2.03	2.01	1.87	1.75	1.51	4.78	4.62
RU	0.11	0.04	0.07	0.05	0.01	0.01	0.00	0.66	0.61
AP	0.58	0.63	0.65	0.54	0.95	0.88	1.64	0.51	0.54
R_Q	38.56	41.78	40.22	33.33	32.94	37.57	36.08	30.72	33.79
R_AB	30.50	30.94	30.14	34.69	42.45	43.22	40.49	40.14	38.11
R_OR	30.95	27.28	29.63	31.99	24.61	19.21	23.43	29.14	28.10
A_CNK	1.24	1.18	1.30	1.18	1.18	1.20	1.20	1.09	1.13
DIFNI	92.07	93.69	91.89	92.33	93.25	93.26	91.83	77.14	78.08
COLNI	3.70	3.01	3.61	3.76	3.03	2.76	2.50	10.13	9.67
XTLNI	1.64	1.28	1.42	1.94	1.31	1.23	1.06	13.08	12.07
BA	99	50	77	97	11	11	41	745	654
RB	334	333	373	317	498	437	564	141	150
SR	29	16	17	22	5	6	18	170	167
HF	3	1	2	2	1	1	2	8	7
ZR	68	51	60	46	23	17	27	205	206
TA	1.4	2.1	2.1	1.0	3.4	3.5	11.0	1.5	1.2
NB	13	11	12	9	22	18	29	13	12
SC	1.6	1.2	2.3	1.9	2.8	2.2	3.2	14.0	14.0
V	0	6	0	0	0	0	7	69	61
LA	10	6	6	6	0	0	0	15	39
Y	26	18	23	25	25	19	28	39	33
GA	20	18	22	18	28	28	33	20	16
TH	7.1	3.9	5.2	5.9	1.8	1.3	1.5	2.5	14.0
U	3.3	10.0	3.8	3.8	5.8	1.8	2.3	3.5	3.5
LI	116	95	105	79	98	92	115	58	66
F	1420	1285	1155	1140	1685	1510	2500	625	690
B	23	19	18	17	20	19	19	15	15
AS	5.4	4.4	1.0	0.9	2.4	1.9	2.8	7.5	3.9
SN	12	18	18	11	22	20	34	6	2
W	2	2	4	2	5	5	9	0	0
CU	0	0	0	0	0	0	7	15	12
PB	11	18	20	0	0	0	11	15	0
ZN	53	47	54	52	49	39	40	75	75

SAMPLE	A15-0072-3	A15-0074	A15-0074-2	A15-0075	A15-0075-2	A15-0075-22	A15-0075-A	A15-0080	A15-0080-2
UNIT	BCaqSG	BCaqST	Grei	BCaqKL	BCaqKL	BClgNL	BCaqST	BCqdBL	BCqdBL
SIO2	67.42	67.10	74.29	72.73	72.50	73.68	65.23	64.72	70.58
TIO2	0.72	0.71	0.08	0.20	0.22	0.11	0.85	0.77	0.31
AL203	14.91	14.84	14.02	14.48	14.43	14.33	15.29	16.63	15.30
FE203	4.80	4.89	1.34	1.77	1.97	1.36	5.54	4.89	2.25
MNO	0.10	0.10	0.05	0.05	0.05	0.04	0.07	0.08	0.06
MGO	1.66	1.69	0.74	0.96	0.93	0.80	1.98	2.13	1.37
CAO	1.90	1.90	0.30	0.59	0.60	0.35	2.09	3.07	1.33
NA20	3.32	3.08	3.60	3.54	3.45	3.60	3.39	3.98	3.99
K20	3.98	3.88	4.12	4.87	5.17	4.37	3.76	2.64	3.95
P205	0.24	0.21	0.37	0.26	0.25	0.34	0.37	0.28	0.17
H20	0.47	0.41	0.75	0.72	0.37	0.60	0.60	0.40	0.50
Q	27.25	28.78	36.80	31.70	30.79	35.13	25.08	22.68	28.02
OR	23.77	23.32	24.59	28.97	30.71	26.09	22.56	15.74	23.53
AB	28.36	26.48	30.74	30.12	29.32	30.74	29.10	33.95	33.99
AN	7.93	8.18	0.00	1.23	1.35	0.00	8.06	13.51	5.52
C	2.28	2.66	3.67	2.95	2.67	3.71	2.77	2.33	2.46
EN	4.17	4.28	1.86	2.40	2.33	2.01	5.00	5.35	3.44
IL	0.22	0.22	0.11	0.11	0.11	0.09	0.15	0.17	0.13
HM	4.85	4.97	1.35	1.78	1.98	1.37	5.62	4.93	2.27
HY	4.17	4.28	1.86	2.40	2.33	2.01	5.00	5.35	3.44
RU	0.61	0.61	0.02	0.14	0.16	0.07	0.78	0.69	0.24
AP	0.56	0.50	0.87	0.61	0.58	0.80	0.87	0.65	0.40
R_Q	34.33	36.63	39.94	34.92	33.91	38.20	32.68	31.34	32.76
R_AB	35.73	33.70	33.36	33.18	32.28	33.43	37.92	46.91	39.74
R_OR	29.94	29.68	26.69	31.91	33.82	28.37	29.40	21.75	27.50
A_CNK	1.13	1.17	1.28	1.19	1.17	1.27	1.14	1.11	1.15
DIFNI	79.38	78.59	92.12	90.78	90.82	91.96	76.74	72.37	85.54
COLNI	9.24	9.46	3.32	4.29	4.41	3.47	10.77	10.45	5.83
XTLNI	10.86	11.18	1.30	2.92	2.98	1.41	11.57	17.25	7.93
BA	498	610	30	282	315	70	616	562	551
RB	162	157	585	309	315	406	165	141	141
SR	140	149	8	51	55	17	159	209	150
HF	7	7	0	3	3	3	8	5	3
ZR	186	210	33	98	104	50	247	162	97
TA	1.2	1.4	4.7	2.4	2.4	4.4	1.6	1.0	0.6
NB	12	12	20	14	15	18	18	12	8
SC	13.0	13.0	2.8	3.2	3.2	2.9	14.0	13.0	5.7
V	57	57	0	6	5	9	65	61	27
LA	29	38	4	20	20	9	41	25	21
Y	50	39	30	23	25	26	39	27	16
GA	20	15	23	17	23	23	24	22	17
TH	10.0	13.0	3.2	12.0	14.0	6.2	14.0	8.4	10.0
U	2.5	3.0	4.3	4.8	8.5	7.0	3.2	4.2	2.7
LI	65	66	211	99	126	111	65	65	49
F	780	690	2090	1090	1090	1235	715	635	330
B	17	13	15	19	19	23	18	13	13
AS	2.0	12.0	6.5	1.8	2.9	4.0	3.6	1.7	0.0
SN	2	2	40	16	13	18	5	0	3
W	0	0	196	4	4	6	0	0	0
CU	11	10	133	0	0	0	9	28	0
PB	17	17	20	24	32	12	0	0	21
ZN	70	67	254	53	54	40	101	83	45

SAMPLE	A15-0081	A15-0083	A15-0087	A15-0087-G	A15-0101	A15-0102	A15-0103	A15-0104	A15-0111
UNIT	DCqdBL	DCqgSS	DCqdBL	Dyke	DCleLG	DCleJS	DCleJS	DCqdSS	DCleJS
SIO2	63.36	66.89	60.85	68.73	73.34	71.76	69.77	68.60	72.51
TIO2	0.82	0.65	0.88	0.03	0.19	0.37	0.42	0.80	0.20
AL203	15.33	15.32	18.70	17.01	13.90	14.52	15.25	14.13	14.86
FE203	5.98	4.47	6.36	0.76	1.97	2.73	2.66	4.97	1.51
MNO	0.11	0.09	0.18	0.14	0.05	0.08	0.04	0.09	0.03
MGO	1.80	1.76	2.04	0.72	0.97	1.22	1.30	1.84	0.94
CAO	2.38	1.95	0.96	0.89	0.57	0.86	0.80	2.15	0.44
NA2O	3.33	3.33	2.13	4.42	3.27	3.36	3.10	2.87	3.29
K2O	3.46	4.13	4.48	6.02	4.52	4.19	5.16	3.13	5.23
P2O5	0.24	0.20	0.16	0.21	0.22	0.12	0.24	0.22	0.23
H2O	0.41	0.51	2.48	0.34	0.60	0.68	0.73	0.41	0.95
Q	25.94	25.77	27.55	17.76	35.31	33.10	29.37	33.59	31.89
OR	20.71	24.73	27.39	35.99	27.01	24.98	30.91	18.74	31.17
AB	28.51	28.52	18.63	37.80	27.95	28.65	26.56	24.58	28.05
AN	10.36	8.47	3.84	3.07	1.40	3.51	2.43	9.34	0.68
C	2.38	2.33	9.28	2.13	3.15	3.20	3.73	2.67	3.56
EN	4.54	4.44	5.25	1.81	2.44	3.06	3.28	4.64	2.36
IL	0.24	0.19	0.40	0.06	0.11	0.17	0.09	0.19	0.06
HM	6.05	4.52	6.57	0.51	1.99	2.75	2.69	5.03	1.52
HY	4.54	4.44	5.25	1.81	2.44	3.06	3.28	4.64	2.36
RU	0.70	0.56	0.70	0.00	0.14	0.28	0.38	0.71	0.17
AP	0.56	0.47	0.38	0.49	0.52	0.28	0.56	0.52	0.54
R_Q	34.51	32.62	37.45	19.40	39.12	38.16	33.82	43.68	35.00
R_AB	37.93	36.09	25.32	41.29	30.96	33.04	30.59	31.96	30.79
R_OR	27.56	31.29	37.23	39.31	29.92	28.80	35.59	24.37	34.22
A_CNK	1.13	1.14	1.85	1.10	1.23	1.25	1.26	1.18	1.25
DIFNI	75.17	79.02	73.57	91.55	90.26	86.74	86.84	76.91	91.11
COLNI	10.83	9.16	12.22	2.75	4.54	5.99	6.06	9.86	3.95
XTLNI	13.54	11.58	7.52	4.34	3.11	5.65	4.73	12.59	2.34
BA	819	692	1101	394	124	438	358	603	283
RB	130	155	164	240	303	180	232	133	289
SR	179	150	166	97	45	97	111	159	78
HF	10	7	7	2	4	4	5	8	3
ZR	286	194	220	43	86	119	154	208	81
TA	1.4	1.1	1.3	0.0	1.8	0.7	1.3	1.1	1.5
NB	15	10	15	0	11	11	13	13	13
SC	16.0	12.0	15.0	2.9	3.4	6.4	4.7	13.0	2.1
V	65	54	106	0	9	23	31	70	7
LA	48	37	51	24	15	21	39	40	23
Y	48	35	43	22	26	31	22	35	21
GA	21	21	25	16	20	17	21	18	19
TH	15.0	13.0	15.0	15.0	8.7	11.0	23.8	14.0	12.0
U	3.4	4.0	4.2	10.0	3.1	2.9	5.0	3.2	5.4
LI	51	52	69	12	109	78	82	77	84
F	710	590	450	70	890	505	795	825	510
B	15	13	31	12	16	20	19	19	30
AS	3.8	3.4	18.0	1.6	0.6	1.9	5.0	3.3	7.3
SN	2	4	0	2	8	1	6	0	13
W	0	0	0	0	2	0	2	0	2
CU	13	11	35	89	0	0	8	10	0
PB	12	0	0	28	15	16	25	0	24
ZN	84	66	98	11	52	58	88	69	52

SAMPLE	A15-0111-2	A15-0113-H	A15-0114	A15-0115	A15-0115-4	A15-0115-5	A15-0116	A15-0116-2	A15-0116-3
UNIT	DClaJS	Grei	DClaJS	DCaqSG	DCaqHB	DCaqHB	DCaqCL	DCaqCL	DCaqCL
SIO2	72.55	69.69	72.89	69.28	71.32	70.87	68.30	68.77	69.05
TIO2	0.20	0.52	0.18	0.52	0.31	0.30	0.56	0.53	0.56
AL203	15.03	14.59	14.62	14.73	14.63	15.09	14.80	14.73	14.39
FE203	1.41	3.80	1.70	3.62	2.22	2.13	4.29	4.05	4.28
MNO	0.04	0.08	0.07	0.07	0.05	0.05	0.09	0.09	0.09
MGO	0.92	1.35	1.04	1.49	1.04	1.06	1.45	1.43	1.40
CAO	0.48	1.67	0.62	1.64	0.74	0.69	1.73	1.63	1.59
NA20	3.07	3.27	3.18	3.24	3.46	3.57	3.24	3.45	3.36
K20	5.22	4.08	4.84	3.95	4.88	5.09	3.97	4.24	4.23
P205	0.23	0.18	0.20	0.20	0.21	0.21	0.20	0.19	0.18
H20	0.74	0.40	0.74	0.51	0.48	0.49	0.40	0.11	0.12
Q	33.23	30.19	33.76	30.52	30.30	28.41	29.34	27.62	28.56
OR	31.14	24.32	28.82	23.66	29.20	30.39	23.81	25.30	25.24
AB	26.20	27.88	27.08	27.76	29.61	30.49	27.79	29.45	28.68
AN	0.88	7.16	1.78	6.91	2.32	2.07	7.37	6.90	6.77
C	4.04	2.20	3.52	2.65	2.84	2.98	2.54	1.97	1.84
EN	2.31	3.39	2.61	3.76	2.62	2.66	3.66	3.59	3.52
IL	0.09	0.17	0.15	0.15	0.11	0.11	0.20	0.19	0.19
HM	1.42	3.83	1.71	3.67	2.25	2.15	4.35	4.09	4.32
HY	2.31	3.39	2.61	3.76	2.62	2.66	3.66	3.59	3.52
RU	0.16	0.43	0.10	0.45	0.26	0.25	0.46	0.43	0.46
AP	0.54	0.42	0.47	0.47	0.49	0.49	0.47	0.44	0.42
J	36.69	36.64	37.65	37.24	34.00	31.81	36.25	33.53	34.63
A_AB	28.93	33.84	30.21	33.88	33.23	34.15	34.34	35.75	34.77
R_OR	34.38	29.52	32.14	28.88	32.77	34.04	29.41	30.72	30.60
A_CNK	1.30	1.14	1.26	1.17	1.19	1.19	1.16	1.11	1.11
DIFNI	90.57	82.39	89.66	81.94	89.11	89.29	80.95	82.37	82.48
COLNI	3.82	7.39	4.47	7.58	4.97	4.92	8.21	7.87	8.03
ITLNI	2.50	9.54	3.61	9.55	4.16	3.94	9.94	9.42	9.23
BA	288	500	294	481	377	379	581	599	625
RB	286	166	194	148	253	278	151	172	164
SR	87	120	94	131	73	72	133	124	119
HF	3	5	3	6	4	4	7	7	6
ZR	80	166	77	166	124	119	214	200	211
TA	1.6	1.0	1.5	1.3	1.6	1.7	1.2	1.3	1.0
NB	13	10	10	12	13	14	13	12	12
SC	2.0	9.0	3.1	10.0	4.2	3.9	11.0	10.0	10.0
V	0	42	6	45	15	14	36	41	40
LA	24	29	14	33	34	32	34	35	34
Y	20	38	23	30	24	24	45	43	46
GA	18	17	15	18	19	20	18	19	20
TH	12.0	11.0	5.9	12.0	20.0	18.0	12.0	13.0	12.0
U	8.1	5.1	3.8	3.0	6.0	8.2	3.7	4.7	2.8
LI	114	80	49	53	91	86	57	66	62
F	500	800	230	570	740	970	725	730	705
B	44	0	21	28	20	50	30	17	24
AS	6.9	17.0	23.0	4.0	5.9	17.0	2.1	2.2	3.3
SN	10	11	7	0	0	9	0	3	9
W	3	2	4	0	2	0	2	3	0
CU	6	11	13	5	0	0	8	9	10
PB	20	11	36	10	19	18	0	15	20
ZN	60	64	44	59	55	59	60	59	68

SAMPLE	A15-0118	A15-0120-2	A15-0141-2	A15-0142	A15-0147	A15-0147-2	A15-0148	A15-1307	A15-1318
UNIT	BCogCL	BCogCL	BCogCL	BCleEB	BCleEB	BCleEB	BCogST	BCogST	BCogST
SIO2	67.82	67.23	67.46	75.27	71.26	71.82	67.39	69.73	68.28
TIO2	0.59	0.62	0.55	0.06	0.28	0.26	0.63	0.49	0.57
AL203	15.06	15.13	15.02	13.36	14.97	15.03	15.54	14.44	14.81
FE203	4.35	4.71	4.30	1.47	2.13	1.67	4.33	3.48	4.12
MNO	0.09	0.09	0.10	0.07	0.06	0.03	0.10	0.09	0.09
MGO	1.80	1.46	1.59	0.75	0.97	1.07	1.47	1.15	1.49
CAO	1.44	1.94	1.63	0.28	0.95	0.44	1.72	0.44	1.51
NA20	3.73	3.70	3.88	3.67	3.32	3.51	3.07	4.49	3.97
K20	3.85	3.88	4.09	4.71	4.11	5.13	4.18	3.61	3.86
P205	0.20	0.19	0.18	0.13	0.27	0.28	0.23	0.22	0.22
H20	0.52	0.20	0.38	0.13	0.80	0.70	0.50	1.11	0.76
Q	26.45	25.31	24.16	34.61	34.06	30.23	28.68	28.28	25.85
OR	23.02	23.19	24.49	27.92	24.73	30.58	25.06	21.76	23.08
AB	31.90	31.64	33.23	31.12	28.57	29.92	26.33	38.71	33.96
AN	5.90	8.47	6.99	0.54	3.00	0.35	7.12	0.76	6.12
C	2.64	1.79	1.70	2.03	4.04	3.60	3.43	2.93	1.90
EN	4.53	3.67	4.01	1.87	2.46	2.69	3.71	2.92	3.75
IL	0.19	0.19	0.22	0.11	0.13	0.06	0.22	0.20	0.19
HM	4.40	4.76	4.35	1.44	2.17	1.68	4.39	3.55	4.16
HY	4.53	3.67	4.01	1.87	2.46	2.69	3.71	2.92	3.75
RU	0.49	0.52	0.44	0.00	0.22	0.23	0.52	0.40	0.47
AP	0.47	0.45	0.42	0.30	0.64	0.65	0.54	0.52	0.52
R_Q	32.51	31.59	29.51	36.95	38.99	33.32	35.82	31.84	31.18
R_AB	39.20	39.47	40.58	33.23	32.71	32.98	32.88	43.62	40.97
R_OR	28.29	28.94	29.91	29.82	28.31	33.70	31.30	24.52	27.85
A_CNK	1.17	1.10	1.09	1.15	1.29	1.24	1.22	1.19	1.10
DIFNI	81.37	80.14	81.87	93.65	87.35	90.74	80.06	88.74	82.88
COLNI	9.12	8.63	8.58	3.48	4.75	4.43	8.32	6.66	8.11
ITLNI	9.07	11.04	9.80	1.85	4.72	2.23	9.72	2.80	8.75
BA	546	642	643	91	505	399	623	444	487
RB	158	151	174	259	194	213	167	132	160
SR	127	143	126	16	121	60	137	99	136
HF	7	8	7	2	4	3	6	5	6
ZR	208	219	207	58	135	89	195	160	193
TA	1.4	1.3	1.3	1.7	2.2	1.9	1.6	1.2	1.2
NB	13	12	13	7	14	11	12	11	12
SC	12.0	12.0	11.0	3.1	5.1	3.4	11.0	9.2	11.0
V	47	51	39	0	14	11	44	39	51
LA	35	38	35	6	28	17	34	25	31
Y	45	48	43	32	18	18	30	31	40
GA	17	21	21	16	19	20	25	18	19
TH	13.0	13.0	13.0	5.3	7.8	13.0	12.0	10.0	11.0
U	3.1	4.5	3.4	3.5	6.0	4.0	3.7	6.4	2.7
LI	62	59	63	65	137	87	99	44	90
F	650	730	735	270	660	350	720	345	635
B	25	18	35	29	30	30	20	21	27
AS	5.2	13.0	5.0	12.0	2.5	6.4	1.8	20.0	3.2
SN	5	1	0	9	10	11	8	8	1
W	0	0	0	3	2	1	1	0	0
CU	11	9	6	0	2	0	0	10	11
PB	18	14	17	14	18	27	29	19	10
ZN	99	70	67	28	66	54	78	65	65

SAMPLE	A15-1320	A15-1327	A15-1328
UNIT	BCaqST	BCaqST	BCaqST
SIO2	70.36	70.37	69.80
TIO2	0.39	0.49	0.61
AL203	14.65	14.37	14.12
FE203	2.98	3.30	4.04
MNO	0.08	0.09	0.08
MGO	1.26	1.41	1.68
CAO	1.01	1.12	1.72
NA20	3.66	3.21	3.22
K20	4.24	4.05	3.40
P205	0.25	0.24	0.20
H20	0.65	0.60	0.60
Q	29.83	32.80	32.79
OR	25.36	24.28	20.34
AB	31.32	27.53	27.55
AN	3.41	4.04	7.31
C	2.83	3.29	2.52
EN	3.17	3.56	4.23
IL	0.17	0.20	0.17
MN	3.01	3.35	4.09
HY	3.17	3.56	4.23
RU	0.30	0.39	0.53
AP	0.59	0.56	0.47
R_Q	34.48	38.77	40.64
R_AB	36.20	32.54	34.15
R_OR	29.32	28.70	25.21
A_CNK	1.18	1.23	1.17
DIFNI	86.51	84.62	80.69
COLNI	6.36	7.10	8.49
XTLNI	5.64	6.53	10.27
BA	381	419	538
RB	196	173	139
SR	93	102	133
HF	4	6	8
ZR	135	166	210
TA	1.5	1.3	1.0
NB	11	11	15
SC	7.7	8.4	8.8
V	25	31	48
LA	22	30	36
Y	27	28	28
GA	18	18	20
TH	8.6	11.0	13.0
U	2.8	4.3	3.0
LI	94	105	83
F	625	530	720
B	23	30	20
AS	13.0	7.6	6.1
SM	4	10	10
W	3	1	1
CU	0	0	0
PB	20	37	20
ZN	47	55	85

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SAMPLE	A16-1102	A16-1102-D	A16-1103	A16-1103-D	A16-1137	A16-1159	A16-1166	A16-1167	A16-1168-1
UNIT	DCgd	DCgd	DCgd	DCgd	DCgd	DCmgBI	DCmgS	DCmgR	gn
SIO2	68.94	65.94	69.65	69.34	66.35	74.89	72.47	74.38	72.16
TIO2	0.61	0.72	0.42	0.38	0.61	0.09	0.31	0.12	0.62
AL2O3	14.93	15.81	15.26	15.61	16.35	13.08	14.51	14.20	13.38
FE2O3	4.01	4.66	3.14	2.86	4.08	1.10	2.26	1.61	4.36
MNO	0.07	0.08	0.07	0.07	0.08	0.05	0.05	0.05	0.07
MGO	1.96	2.22	1.64	1.44	1.89	0.86	1.08	0.84	1.83
CAO	2.15	2.42	1.39	1.32	2.75	0.45	0.71	0.48	1.23
NA2O	3.31	3.75	3.86	4.13	3.91	3.66	3.58	3.62	2.86
K2O	3.16	3.45	4.22	4.55	3.31	4.72	4.67	4.52	2.63
P2O5	0.19	0.24	0.15	0.15	0.19	0.09	0.28	0.23	0.13
H2O	0.60	0.60	0.60	0.70	0.50	1.30	0.60	0.60	0.60
Q	30.80	23.26	26.08	23.37	22.86	33.87	31.44	34.36	40.75
OR	18.82	20.53	25.01	26.95	19.67	28.20	27.65	26.72	15.67
AB	28.19	31.95	32.72	35.00	33.24	31.28	30.31	30.61	24.38
AN	9.49	10.51	5.93	5.58	12.46	1.66	1.69	0.88	5.29
C	2.63	2.09	2.18	1.85	1.80	1.36	2.94	3.03	3.93
EN	4.91	5.57	4.09	3.59	4.73	2.16	2.69	2.09	4.59
IL	0.15	0.17	0.15	0.15	0.17	0.11	0.11	0.11	0.15
HM	4.04	4.69	3.15	2.86	4.10	1.11	2.26	1.61	4.39
HY	4.91	5.57	4.09	3.59	4.73	2.16	2.69	2.09	4.59
RU	0.53	0.63	0.34	0.30	0.52	0.03	0.25	0.06	0.55
AP	0.44	0.56	0.35	0.35	0.44	0.21	0.65	0.53	0.30
R_Q	39.58	30.70	31.12	27.39	30.17	36.28	35.17	37.47	50.44
R_AB	36.24	42.17	39.04	41.02	43.87	33.51	33.91	33.39	30.17
R_OR	24.18	27.13	29.84	31.59	25.96	30.21	30.92	29.14	19.40
A_CNK	1.17	1.11	1.14	1.11	1.09	1.09	1.19	1.21	1.37
DIFNI	77.81	75.77	83.82	85.32	75.78	93.35	89.40	91.69	80.80
COLNI	9.10	10.43	7.39	6.61	9.00	3.38	5.06	3.81	9.13
XTLNI	12.93	14.41	8.79	8.09	15.77	3.18	3.58	2.34	8.51
BA	830	905	586	565	755	76	292	83	605
RB	105	121	152	153	126	182	310	275	96
SR	203	214	123	124	225	22	57	22	286
HF	5	7	5	4	5	2	3	1	6
ZR	174	201	130	119	169	40	140	55	200
TA	0.8	0.9	1.1	0.8	0.9	0.9	2.1	1.7	0.5
NB	10	12	10	10	11	6	14	11	12
SC	9.0	12.0	6.8	7.4	10.0	2.4	3.7	2.0	8.9
V	54	63	33	35	53	4	11	2	73
LA	29	37	25	28	37	6	26	9	30
Y	21	25	31	29	28	19	20	17	23
GA	19	22	19	21	22	19	20	23	17
TH	11.0	14.0	10.0	12.0	12.0	4.0	20.0	6.2	7.4
U	3.0	3.4	2.0	2.0	2.7	2.3	3.2	3.6	1.8
LI	33	36	50	53	41	76	104	74	35
F	620	650	530	570	600	280	1300	660	470
B	20	20	25	25	20	20	20	20	20
AS	1.6	1.4	0.8	1.2	1.6	1.2	3.4	1.8	0.8
SN	4	4	9	8	8	5	13	12	11
W	1	1	1	1	1	1	2	3	1
CU	4	6	1	0	11	0	0	0	5
PB	22	25	19	18	20	25	22	24	18
ZN	324	278	47	44	60	27	56	40	60

SAMPLE	A16-1168-2	A16-1169	A16-1170	A16-1171	A16-1172	A16-1172-D	A16-1174	A16-1202-C	A16-1202-D
UNIT	gn	DCgd	DClaMR	DCagSL	DCgd	DCgd	DClaMR	DCagST	DCagST
SIO2	61.60	67.25	72.98	69.83	66.89	66.91	74.80	69.76	70.14
TIO2	1.15	0.90	0.18	0.20	0.63	0.67	0.15	0.49	0.45
AL203	16.34	14.79	14.58	15.07	15.86	15.61	13.00	14.76	14.56
FE203	7.31	5.82	2.16	2.10	4.14	4.59	1.96	3.38	3.26
MNO	0.13	0.10	0.06	0.50	0.08	0.10	0.05	0.08	0.07
MGO	2.61	1.98	0.90	0.91	2.03	1.83	0.82	1.42	1.41
CAO	3.18	2.12	0.62	0.83	2.63	1.77	0.34	1.47	1.29
NA20	3.37	3.04	3.83	3.50	3.62	3.84	3.48	3.52	3.35
K20	2.73	3.06	4.58	5.32	3.42	3.85	4.81	3.90	4.12
P205	0.23	0.22	0.18	0.16	0.19	0.21	0.19	0.20	0.21
H20	0.70	0.50	0.50	0.50	0.30	0.60	0.50	0.70	0.60
Q	21.78	31.20	30.97	26.83	24.73	24.05	34.86	29.95	30.95
OR	16.37	18.23	27.07	31.97	20.33	22.91	28.57	23.31	24.65
AB	28.90	25.91	32.38	30.09	30.78	32.69	29.56	30.09	28.67
AN	14.47	9.14	1.90	3.12	11.86	7.45	0.44	6.05	5.08
C	2.64	3.17	2.62	2.46	1.88	2.42	1.91	2.58	2.78
EN	6.59	4.97	2.24	2.30	5.08	4.59	2.05	3.57	3.55
IL	0.28	0.22	0.13	0.39	0.17	0.22	0.11	0.17	0.15
HM	7.41	5.86	2.16	1.40	4.16	4.62	1.97	3.41	3.30
HY	6.59	4.97	2.24	2.30	5.08	4.59	2.05	3.57	3.55
RU	1.02	0.79	0.11	0.00	0.54	0.56	0.09	0.40	0.38
AP	0.54	0.51	0.42	0.38	0.44	0.49	0.44	0.47	0.49
R_Q	32.48	41.41	34.25	30.18	32.61	30.19	37.49	35.93	36.73
R_AB	43.11	34.39	35.81	33.85	40.59	41.04	31.79	36.10	34.02
R_OR	24.41	24.20	29.94	35.97	26.81	28.77	30.72	27.96	29.25
A_CNK	1.14	1.22	1.18	1.16	1.10	1.14	1.13	1.16	1.18
DIFNI	67.05	75.34	90.43	88.89	75.85	79.65	92.98	83.34	84.27
COLNI	14.28	11.04	4.53	5.15	9.41	9.42	4.13	7.16	7.00
ITLNI	19.08	12.62	3.47	4.73	15.43	10.67	1.88	8.55	7.57
BA	884	594	230	310	803	673	120	504	459
RB	114	133	275	261	126	166	274	173	169
SR	236	172	53	64	224	183	33	106	104
HF	10	8	3	3	6	7	3	5	5
ZR	320	250	84	94	171	198	77	155	148
TA	1.0	1.1	1.4	1.1	0.9	1.1	1.3	0.9	1.2
NB	20	15	11	10	11	13	10	12	12
SC	18.0	14.0	3.8	3.5	11.0	11.0	2.5	7.8	7.5
V	100	68	11	9	53	52	6	36	36
LA	56	44	16	17	38	38	11	28	25
Y	34	36	26	27	26	33	25	28	27
GA	21	23	20	24	24	23	22	18	19
TH	16.0	14.0	8.8	10.0	13.0	12.0	7.5	10.0	10.0
U	1.8	3.2	3.8	2.3	2.0	2.4	3.8	3.0	4.7
LI	83	43	99	73	41	82	67	95	[illegible]
F	730	680	720	710	670	750	590	530	580
B	20	15	30	20	15	20	25	35	25
AS	7.3	1.8	0.8	1.0	1.1	2.1	3.7	3.9	2.8
SN	3	8	13	15	9	10	16	4	9
W	1	1	1	1	1	1	4	1	1
CU	23	10	0	0	6	1	0	5	0
PB	27	14	20	21	17	16	24	33	22
ZN	176	80	49	47	56	67	60	82	72

SAMPLE	A16-1206	A16-1207-1	A16-1207-7	A16-1208-A	A16-1213	A16-1216-4	A16-1217-1	A16-1221	A16-1222
UNIT	DCagST	Grei	DCagST	DCagST	DClaMR	DClgLL	DClaMR	DClaMR	DClaPL
SIO2	68.97	85.32	69.05	68.29	73.49	73.82	73.70	73.50	74.33
TIO2	0.48	0.14	0.52	0.54	0.11	0.06	0.09	0.18	0.06
AL203	15.08	8.10	14.56	15.41	14.54	14.46	14.33	14.33	14.20
FE203	3.31	1.15	3.87	3.78	1.40	1.18	1.32	1.66	1.15
MNO	0.09	0.04	0.08	0.08	0.03	0.04	0.04	0.03	0.03
MGO	1.41	1.09	1.45	1.55	0.77	0.70	0.73	0.86	0.74
CAO	1.23	0.19	1.08	1.28	0.38	0.31	0.36	0.43	0.32
NA20	3.50	0.37	3.63	3.10	3.49	3.55	4.39	3.23	3.74
K20	4.30	2.16	4.22	4.15	4.93	4.30	4.18	4.63	4.16
P205	0.22	0.18	0.22	0.22	0.30	0.41	0.38	0.31	0.34
H20	0.70	1.52	0.75	0.80	0.40	0.60	0.89	0.60	0.60
Q	28.42	74.17	28.29	30.42	33.34	35.99	31.17	35.95	35.82
OR	25.80	12.93	25.30	24.95	29.32	25.68	24.81	27.62	24.81
AB	30.04	3.17	31.12	26.65	29.69	30.32	37.27	27.56	31.90
AN	4.73	0.00	3.97	4.99	0.00	0.00	0.00	0.10	0.00
C	3.00	5.21	2.62	4.08	3.48	4.00	2.39	4.00	3.57
EN	3.56	2.75	3.66	3.92	1.93	1.76	1.82	2.16	1.86
IL	0.20	0.09	0.17	0.17	0.06	0.09	0.09	0.06	0.06
HY	3.36	1.16	3.92	3.84	1.41	1.19	1.32	1.67	1.16
HY	3.56	2.75	3.66	3.92	1.93	1.76	1.82	2.16	1.86
RU	0.38	0.10	0.44	0.46	0.08	0.02	0.05	0.15	0.03
AP	0.52	0.42	0.52	0.52	0.70	0.96	0.88	0.73	0.80
R_Q	33.73	82.16	33.40	37.08	36.10	39.13	33.43	39.45	38.72
R_AB	35.65	3.51	36.74	32.50	32.15	32.96	39.97	30.24	34.48
R_OR	30.62	14.33	29.86	30.42	31.75	27.91	26.61	30.31	26.81
A_CNK	1.19	2.46	1.16	1.29	1.24	1.31	1.16	1.29	1.26
DIFNI	84.26	90.27	84.71	82.02	92.35	91.99	93.25	91.13	92.53
COLNI	7.11	4.00	7.75	7.94	3.40	3.04	3.23	3.90	3.08
XTLNI	7.22	1.93	6.53	7.74	1.35	1.23	1.28	1.62	1.30
BA	445	137	468	486	86	19	48	164	26
RB	185	150	183	174	374	765	692	347	409
SR	104	10	96	103	25	14	32	30	6
HF	5	2	6	6	2	1	1	3	1
ZR	161	47	177	175	62	39	44	79	33
TA	0.8	0.7	1.2	0.8	0.9	1.1	5.6	6.8	2.2
NB	14	6	11	14	14	28	24	16	13
SC	8.2	3.6	10.0	8.7	1.7	1.7	2.5	2.5	1.4
V	32	7	35	35	4	3	10	6	2
LA	27	10	29	32	8	3	6	13	2
Y	27	12	35	30	20	26	35	19	16
GA	23	12	18	19	19	30	26	25	23
TH	11.0	2.7	12.0	11.0	5.5	4.5	5.7	11.0	2.2
U	5.4	5.1	3.2	4.2	7.1	5.2	5.8	16.0	10.0
LI	110	58	88	118	209	417	312	123	143
F	630	500	650	560	1800	3300	3875	1650	1175
B	30	54	19	30	25	20	19	30	30
AS	2.4	180.0	7.1	2.1	0.6	1.9	1.1	2.9	2.5
SN	10	0	6	11	24	38	40	16	19
W	2	1	0	1	3	19	13	5	5
CU	0	13	15	0	0	0	0	0	0
PB	27	0	41	18	14	17	24	20	13
ZN	88	24	95	63	71	77	67	48	56

SAMPLE	A16-1224	A16-1232	A16-1238-A	A16-1245-2	A16-1251-2	A16-1252	A16-1255-2	A16-1256	A16-1260-1
UNIT	BClaPL	BCagST	BClaPL	BClaGR	BCagGL	BCagGL	BCagGL	BClgLL	BClgBB
SIO2	72.71	69.89	73.90	71.63	68.16	69.07	66.49	73.81	72.05
TIO2	0.05	0.40	0.06	0.17	0.55	0.59	0.67	0.06	0.04
AL203	14.39	14.69	14.97	14.58	15.53	14.44	15.34	14.72	15.38
FE203	0.90	2.87	0.86	1.37	3.71	4.20	4.59	1.13	0.95
MNO	0.03	0.08	0.02	0.04	0.08	0.09	0.08	0.03	0.03
MGO	0.73	1.41	0.80	0.95	1.48	1.71	1.74	0.71	0.72
CAO	0.43	1.07	0.34	0.42	1.60	1.27	1.54	0.32	0.40
NA2O	4.08	3.52	3.83	3.59	3.16	3.53	3.67	3.97	4.86
K2O	3.38	4.25	3.64	4.56	4.19	3.72	3.83	4.09	3.50
P2O5	0.50	0.23	0.46	0.31	0.23	0.21	0.21	0.48	0.54
H2O	0.80	0.70	0.80	0.80	0.50	0.98	0.47	0.20	0.67
Q	35.79	29.86	36.80	32.62	29.12	29.96	25.64	34.12	29.66
OR	20.48	25.54	21.72	27.63	25.11	22.26	23.08	24.28	20.96
AB	35.36	30.26	32.68	31.11	27.09	30.22	31.63	33.71	41.63
AN	0.00	3.86	0.00	0.06	6.52	4.98	6.38	0.00	0.00
C	4.32	2.95	4.77	3.81	3.48	2.83	2.91	3.77	3.64
EN	1.86	3.57	2.01	2.42	3.73	4.31	4.41	1.77	1.82
IL	0.07	0.17	0.04	0.09	0.17	0.19	0.17	0.06	0.06
HM	0.92	2.92	0.87	1.40	3.76	4.25	4.68	1.13	0.96
HY	1.86	3.57	2.01	2.42	3.73	4.31	4.41	1.77	1.82
RU	0.02	0.31	0.04	0.13	0.47	0.49	0.59	0.03	0.01
AP	1.19	0.54	1.08	0.74	0.54	0.49	0.50	1.12	1.27
R_Q	39.06	34.86	40.35	35.70	35.81	36.34	31.91	37.04	32.16
R_AB	38.59	35.32	35.84	34.06	33.31	36.65	39.37	36.60	45.13
R_OR	22.35	29.82	23.81	30.24	30.88	27.01	28.72	26.36	22.72
A_CNK	1.31	1.19	1.38	1.26	1.23	1.19	1.18	1.28	1.23
DIFNI	91.63	85.67	91.20	91.36	81.33	82.44	80.35	92.11	92.25
COLNI	2.85	6.66	2.92	3.91	7.67	8.75	9.26	2.97	2.84
XTLNI	1.31	6.36	1.41	1.75	9.13	8.00	9.48	1.24	1.27
BA	14	469	17	330	524	469	709	15	77
RB	485	177	550	202	169	162	149	896	845
SR	15	88	6	44	120	124	140	16	28
HF	1	5	1	1	6	7	8	1	2
ZR	28	129	20	64	175	183	226	39	26
TA	0.8	2.9	1.2	1.2	1.3	1.0	1.2	1.1	14.0
NB	25	12	34	8	12	11	13	28	34
SC	4.2	6.7	7.6	4.3	8.2	11.0	12.0	1.8	2.2
V	0	25	0	10	50	44	54	4	0
LA	2	21	2	8	30	32	39	2	0
Y	16	24	17	18	30	36	35	25	39
GA	29	19	34	22	24	18	21	32	30
TH	1.3	8.3	1.0	4.4	12.0	13.0	15.0	5.0	2.0
U	21.4	3.1	8.8	5.9	2.5	2.9	2.6	4.6	4.3
LI	89	133	109	160	98	80	84	502	336
F	1150	510	1150	420	560	500	495	3650	4135
B	30	60	30	80	30	29	22	25	14
AS	2.6	2.0	3.4	1.9	3.8	1.7	2.3	2.1	0.7
SN	20	12	31	13	8	4	2	41	31
W	8	1	10	3	1	2	0	8	8
CU	0	3	0	0	0	12	6	0	0
PB	12	19	15	25	27	23	24	17	11
ZN	58	55	69	35	65	86	85	87	64

SAMPLE	A16-1265	A16-1268-1	A16-1269-1	A16-1276	A16-1277-1	A16-1278	A16-1279-3	A16-1281	A16-1287-1
UNIT	DClgLL	DCmgST	DCmgST	DCmgST	DCleGR	DCmgST	DCmgST	DCgd	DCmgST
SIO2	72.74	67.45	68.95	69.12	72.45	67.37	68.54	68.94	68.72
TIO2	0.06	0.69	0.57	0.53	0.21	0.53	0.41	0.61	0.54
AL2O3	14.66	14.74	14.53	14.84	14.57	15.38	15.37	14.62	14.85
FE2O3	1.19	4.93	4.16	3.67	1.51	3.73	2.97	3.94	3.86
MNO	0.03	0.10	0.09	0.09	0.03	0.07	0.07	0.07	0.09
MGO	0.70	1.56	1.47	1.49	1.05	1.52	1.22	1.82	1.38
CAO	0.22	1.83	1.49	1.34	0.65	1.62	1.36	1.75	1.22
NA2O	3.57	3.47	3.77	3.09	3.31	3.73	3.90	3.35	3.63
K2O	4.17	3.89	3.88	4.05	5.06	4.22	4.84	3.52	4.27
P2O5	0.41	0.23	0.21	0.22	0.14	0.21	0.18	0.19	0.22
H2O	0.70	0.32	0.51	0.50	0.53	0.44	0.57	0.80	0.82
Q	35.64	27.07	27.61	31.65	31.57	24.77	23.36	30.41	27.53
OR	25.15	23.27	23.15	24.34	30.24	25.37	28.96	21.07	25.57
AB	30.80	29.69	32.18	26.56	28.29	32.08	33.38	28.68	31.09
AN	0.00	7.66	6.07	5.29	2.33	6.77	5.63	7.53	4.67
C	4.35	2.07	1.94	3.52	2.83	2.27	1.69	2.60	2.59
EN	1.78	3.93	3.69	3.77	2.64	3.85	3.07	4.59	3.48
IL	0.07	0.22	0.19	0.20	0.06	0.15	0.15	0.15	0.19
HM	1.21	4.99	4.20	3.73	1.53	3.79	3.00	3.99	3.91
MY	1.78	3.93	3.69	3.77	2.64	3.85	3.07	4.59	3.48
RU	0.03	0.58	0.47	0.44	0.18	0.46	0.33	0.54	0.44
AP	0.97	0.54	0.49	0.52	0.33	0.50	0.42	0.45	0.52
R_Q	38.92	33.82	33.29	38.35	35.04	30.12	27.26	37.93	32.70
R_AB	33.63	37.10	38.80	32.17	31.40	39.02	38.95	35.78	36.93
R_OR	27.46	29.08	27.92	29.48	33.56	30.86	33.79	26.29	30.37
A_CNK	1.36	1.11	1.11	1.25	1.20	1.13	1.09	1.17	1.16
DIFNI	91.59	80.02	82.94	82.55	90.10	82.22	85.69	80.16	84.19
COLNI	3.06	9.13	8.08	7.69	4.23	7.79	6.23	8.73	7.58
XTLNI	1.25	10.41	8.66	7.93	4.18	9.47	7.79	10.74	7.11
BA	23	616	533	397	537	651	606	525	476
RB	866	156	160	175	248	162	157	143	179
SR	20	148	125	106	71	135	112	127	127
HF	1	8	7	5	4	5	4	7	6
ZR	43	226	194	176	122	163	129	182	181
TA	8.7	1.2	1.5	8.3	1.5	1.0	0.9	1.2	1.2
NB	29	12	11	12	10	11	8	15	10
SC	1.7	14.0	12.0	8.3	4.2	9.0	6.6	8.9	10.0
V	1	56	43	41	7	42	43	53	37
LA	3	41	36	30	36	30	21	34	28
Y	27	41	38	29	33	35	31	30	36
GA	26	17	18	23	17	21	19	21	17
TH	5.5	15.0	14.0	11.0	20.7	12.0	10.0	12.0	12.0
U	5.7	5.3	3.9	3.1	6.4	4.2	3.8	2.2	2.9
LI	497	65	70	102	96	80	52	74	73
F	3700	610	495	690	305	475	335	660	470
B	25	15	24	60	38	23	33	30	24
AS	1.4	2.1	14.0	10.0	6.1	3.7	3.3	4.7	3.3
SN	36	4	8	10	13	2	2	2	3
W	9	0	0	1	2	0	0	1	2
CU	0	19	7	0	0	7	0	1	8
PB	23	14	0	28	24	0	31	26	22
ZN	74	70	64	101	39	68	81	88	63

SAMPLE	A16-1290-1	A16-1299	A16-1302	A16-1333	A16-3016	A16-3024	A16-3027	A16-3036	A16-3046
UNIT	DClaPL	DClaGR	DClaGR	DCagST	DCagBI	DClaPL	DCagSL	DCagBI	DCagap
SIO2	73.91	73.18	72.01	71.08	75.85	73.19	69.15	73.63	69.50
TIO2	0.11	0.17	0.16	0.40	0.02	0.22	0.46	0.09	0.51
AL203	13.74	14.95	15.02	14.51	13.83	14.11	15.28	13.54	14.47
FE203	1.46	1.29	1.19	2.78	0.75	2.11	3.47	1.13	3.68
MNO	0.05	0.03	0.04	0.06	0.04	0.05	0.06	0.08	0.06
MGO	0.78	1.06	0.78	1.31	0.64	1.24	2.18	0.84	1.64
CAO	0.31	0.36	0.36	1.42	0.32	0.32	1.59	0.43	0.87
NA20	4.11	3.31	4.15	3.30	3.53	3.03	3.62	3.44	3.43
K20	4.41	4.69	4.88	4.03	4.89	5.20	4.57	5.60	4.12
P205	0.28	0.30	0.34	0.16	0.12	0.18	0.19	0.13	0.21
H20	0.45	0.50	0.75	0.80	0.40	0.60	0.20	0.50	0.80
Q	32.20	34.60	28.29	32.21	35.29	33.74	24.33	30.70	30.51
OR	26.29	27.92	29.15	24.07	28.93	30.87	26.88	33.49	24.74
AB	35.05	28.18	35.46	28.19	29.87	25.73	30.45	29.43	29.47
AN	0.00	0.00	0.00	6.05	0.80	0.41	6.61	1.30	2.99
C	2.22	4.45	2.94	2.54	2.43	3.35	1.93	1.36	3.34
EN	1.96	2.66	1.96	3.29	1.59	3.10	5.40	2.11	4.15
IL	0.11	0.06	0.09	0.13	0.04	0.11	0.13	0.17	0.13
HM	1.47	1.30	1.20	2.81	0.70	2.12	3.45	1.14	3.74
MY	1.96	2.66	1.96	3.29	1.59	3.10	5.40	2.11	4.15
RU	0.05	0.14	0.12	0.34	0.00	0.16	0.39	0.00	0.45
AP	0.65	0.70	0.80	0.37	0.28	0.42	0.44	0.30	0.49
R_Q	34.42	38.15	30.45	38.13	37.51	37.35	29.79	32.79	36.01
R_AB	37.47	31.07	38.17	33.37	31.75	28.48	37.29	31.43	34.78
R_OR	28.11	30.78	31.38	28.49	30.75	34.17	32.91	35.78	29.21
A_CNK	1.14	1.34	1.18	1.17	1.18	1.26	1.11	1.08	1.24
DIFNI	93.54	90.69	92.90	84.46	94.08	90.33	81.66	93.61	84.72
COLNI	3.54	4.02	3.25	6.23	2.40	5.32	8.98	3.43	8.01
XTLNI	1.37	1.86	1.37	8.36	1.92	2.58	10.39	2.78	5.89
BA	63	435	503	504	5	312	484	126	483
RB	364	191	199	142	175	248	201	166	210
SR	17	44	48	122	5	53	125	33	118
HF	2	2	3	4	1	3	5	2	4
ZR	56	64	63	128	26	101	160	46	160
TA	2.7	1.2	1.6	0.9	0.5	1.6	1.3	0.7	1.5
NB	12	9	10	10	4	11	13	6	12
SC	3.0	3.4	4.0	6.1	0.5	4.1	7.4	2.9	8.5
V	0	5	0	31	0	10	28	4	40
LA	7	9	9	24	2	19	36	7	31
Y	23	17	21	24	11	26	32	16	25
GA	19	21	16	19	18	23	27	20	26
TH	4.8	4.8	5.2	8.8	0.8	10.0	16.0	3.9	11.0
U	5.0	5.7	7.9	1.9	1.6	3.2	3.6	2.9	4.3
LI	132	68	49	65	25	60	56	29	73
F	1005	350	105	400	92	570	860	125	640
B	22	45	36	65	25	25	20	20	30
AS	6.0	9.4	5.0	5.6	2.0	9.3	1.3	2.2	4.3
SN	22	16	11	7	6	15	8	7	11
W	5	3	6	2	1	2	1	2	1
CU	13	0	0	3	0	0	0	0	5
PB	11	28	23	27	22	23	20	27	25
ZN	49	38	23	51	17	30	53	24	73

SAMPLE	A16-3047	A16-3048	A16-3049	A16-3051	A16-3052	A16-3053	A16-3054	A16-3056	A16-3057
UNIT	BCagap	BClaPL	BClaNR	BCgd	BCgd	BCgd	BClaPL	BClaPL	BClaPL
SIO2	70.01	73.00	72.09	67.86	66.06	67.80	73.58	71.88	73.68
TIO2	0.47	0.12	0.21	0.61	0.73	0.68	0.28	0.25	0.16
AL203	14.28	14.61	14.08	14.57	15.99	15.35	14.88	14.44	13.92
FE203	3.46	1.44	2.00	4.26	4.64	4.29	1.75	2.16	1.77
MNO	0.07	0.04	0.05	0.08	0.09	0.07	0.03	0.05	0.04
MGO	1.50	0.90	1.00	1.78	2.14	1.92	0.99	0.97	0.80
CAO	0.97	0.36	0.71	2.16	2.41	2.61	0.83	0.60	0.37
NA20	3.93	3.82	3.47	3.34	3.32	3.32	3.33	3.69	3.65
K20	4.35	4.62	5.01	3.52	3.39	2.99	4.97	4.97	4.75
P205	0.21	0.34	0.17	0.21	0.22	0.19	0.19	0.27	0.24
H20	0.70	0.60	0.40	0.80	0.70	0.60	0.30	0.50	0.70
Q	26.97	31.95	30.55	28.72	26.30	29.35	32.19	29.62	33.15
OR	25.92	27.51	30.00	21.16	20.26	17.82	29.16	29.61	28.27
AB	33.50	32.54	29.72	28.72	28.38	28.31	27.94	31.45	31.07
AN	3.46	0.00	2.44	9.49	10.62	11.80	2.85	1.22	0.27
C	1.86	3.34	2.09	1.87	3.03	2.38	2.94	2.56	2.69
EN	3.76	2.26	2.52	4.51	5.38	4.82	2.45	2.43	2.00
IL	0.15	0.09	0.11	0.17	0.19	0.15	0.06	0.11	0.09
HM	3.49	1.45	2.02	4.33	4.69	4.32	1.74	2.18	1.78
HY	3.76	2.26	2.52	4.51	5.38	4.82	2.45	2.43	2.00
RU	0.39	0.08	0.16	0.53	0.64	0.61	0.24	0.20	0.12
AP	0.49	0.79	0.40	0.50	0.52	0.44	0.44	0.63	0.56
R_Q	31.21	34.73	33.85	36.54	35.09	38.88	36.05	32.67	35.84
R_AB	38.78	35.37	32.92	36.54	37.87	37.51	31.30	34.68	33.60
R_OR	30.01	29.90	33.23	26.92	27.03	23.61	32.65	32.65	30.56
A_CNK	1.10	1.22	1.13	1.10	1.18	1.14	1.20	1.15	1.18
DIFNI	86.39	92.00	90.27	78.60	74.93	75.48	89.28	90.68	92.50
COLNI	7.40	3.79	4.65	9.01	10.27	9.29	4.24	4.72	3.87
XTLNI	6.10	1.58	4.21	12.65	14.40	15.17	4.56	2.92	1.67
BA	467	183	277	644	825	830	396	222	139
RB	217	248	233	129	130	105	250	334	298
SR	99	37	66	191	227	235	74	48	31
HF	4	2	3	6	6	6	4	4	2
ZR	152	54	92	192	196	185	132	112	73
TA	1.5	2.4	1.2	0.9	1.0	0.7	1.1	2.5	1.9
NB	12	11	11	11	14	11	9	17	12
SC	7.9	3.8	3.7	11.0	11.0	10.0	3.4	3.8	2.8
V	36	6	10	56	64	61	15	9	3
LA	29	7	19	41	39	37	32	25	12
Y	25	15	25	41	30	25	18	23	20
GA	22	20	20	22	22	24	25	25	24
TH	11.0	2.9	10.0	15.0	12.0	12.0	17.0	15.0	7.7
U	2.9	2.6	3.3	3.1	2.2	1.3	4.0	5.4	4.0
LI	73	46	75	49	44	48	68	114	80
F	690	490	570	610	660	590	690	1000	820
B	25	35	25	20	20	20	20	25	30
AS	1.2	2.3	1.5	1.7	1.7	1.0	0.5	1.5	2.2
SN	10	22	17	8	9	8	10	20	16
W	1	5	1	1	1	1	1	2	1
CU	0	0	0	7	0	7	0	0	0
PB	20	22	25	19	17	14	21	23	21
ZN	57	29	42	59	69	60	46	59	46

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